

## **Section 10: Epidemiologic Profile of the District of Columbia**

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## EXECUTIVE SUMMARY

The Department of Health HIV/AIDS Administration (DOH/HAA) through Centers for Disease Control and Prevention (CDC) guidelines are authorized to compile, interpret and summarize an Epidemiologic Profile from data collected on HIV/AIDS in the District of Columbia. The following report not only provides an accurate description of the populations affected by AIDS, but also serves as an effective tool for local public health workers, planners, educators, health care providers, and community representatives for developing, implementing, and evaluating AIDS prevention and health care services to provide a thorough understanding of the HIV/AIDS epidemic in the District of Columbia.

Through a federal cooperative agreement, The District of Columbia, Department of Health (DC/DOH) participates in the CDC HIV/AIDS surveillance activities. Using established epidemiological methods, standardized data collection forms, and computer software developed by the CDC, the HIV/AIDS Administration, Division of Epidemiology (HAA/DOE) monitors longitudinal and periodic trends in HIV/AIDS-related morbidity and mortality, assesses the need for health care services, and guides the public health response to the epidemic. Foremost, HAA/DOE has the responsibility of ensuring the confidentiality and security of collected information, and the priority of exceeding the CDC's surveillance program and seroprevalence survey requirements. AIDS surveillance data are the only AIDS-related, population-based data consistently available by epidemiologic variables such as gender, race/ethnicity, age, and mode of HIV exposure for all states/territories.

Highly Active Antiretroviral Therapies (HAART) became widely available in 1996. Nationally and locally, the impact on the ascertainment of HIV cases has been significant. HAART has inhibited the progression of HIV disease. There are now less AIDS cases being diagnosed and people are living longer due to the HAART therapies. There is also a significant decline in AIDS related deaths because of these therapies.

Residents of the District of Columbia comprised 0.21% of the population nationwide in 2000. However they represented approximately 2.3% of the AIDS cases reported nationwide during the period July 1999 through June 2000. During that same period, the rate of AIDS per 100,000 population was 189.4 for the District compared to 15.5 per 100,000 for the entire United States. This is indicative of the disproportionate impact of the epidemic in the District of Columbia. AIDS is a leading cause of death among Black/African-American women and White men between the ages of 25-44. It is the second leading cause of death for Black/African-American men, second only to homicides.

As of December 31, 2000, 13,040 cumulative AIDS cases, (12,968 adult/adolescent and 172 pediatric,) were reported among residents of the District of Columbia. Of the adult/adolescent cases, 18% are females and 82% are males, while 51% are living and 47% are deceased. African-Americans or Blacks comprised 75% of the District AIDS cases, Whites comprised 21%, Latinos or Hispanics comprised 3%, and Asian/Pacific Islanders and Native Americans comprised 0% of the reported adult/adolescent cases. Blacks represent the overwhelming majority of the cases and continue to be disproportionately affected by the HIV/AIDS epidemic in the District of Columbia.

Among male adult/adolescent AIDS cases reported from 1996 to 2000, the predominant modes of HIV transmission were men who have sex with men (MSM) (50%), injection/intravenous drug use (IDU) (27%), and heterosexual contact (11%), as compared to the previous interval of cases reported from 1990 to 1995 when MSM were 63%, IDU were 24%, and heterosexual contact represented 5%. Among the

MSM cases reported from 1996 to 2000, almost two-thirds of the cases were among Blacks (66%), over one-fourth were among Whites (27%), and 6% were among Hispanics

In the District of Columbia for the period 1996-2000, females accounted for 26% of the cases compared to 16% for the period 1990-1995. The number of diagnosed cases among women has remained virtually constant during the last two years. The lack of a decline may be indicative of a problem with HIV/AIDS in this population. The number of diagnosed AIDS cases among males, however, has continued to decline, but this trend should not translate to less focus on certain male populations. Heterosexual contact is becoming the major mode of exposure specifically for women. Although MSM cases continue to decline overall, Black/African-American MSM continues to represent an overwhelming majority of the MSM cases.

It is no longer enough to conceptualize and develop culturally competent responses to the HIV/AIDS challenge, but rather HAA must stay ahead of the HIV/AIDS epidemic by constantly re-assessing its preventive as well as support services initiatives. It is important to expand surveillance initiatives in order to capture vital data that will allow the community to have realistic, relevant, and effective data. It is also important to the understanding and the control of HIV/AIDS that physicians and care providers report cases. For these reasons, by the end of 2001, HAA will begin the implementation of HIV surveillance using the Unique Identifier System (UIS), a non-name, alpha –numeric, unique identifier code, which will allow for a more accurate monitoring of the entire HIV epidemic, not just AIDS. The epidemiologic data collected through the UIS would ensure a strategic planning and program development process that meets the changing face of the HIV/AIDS epidemic.

## **INTRODUCTION**

Due to altered HIV infection patterns, major changes in national AIDS trends have taken place. Today, the base of the epidemic continues to expand particularly among women, people of color, youth and adolescents. Heterosexual rates of infection continue to increase at alarming rates especially among Black/African-American women. The national trend in HIV transmission among adolescents and seniors also raises particular concerns.

The occurrence of HIV/AIDS in the District of Columbia has been documented as far back as 1979, however, AIDS surveillance in the District began in July of 1983, when reporting was mandated under the Preventive Health Services Administration of the Commission of Public Health. In 1987, active and passive surveillance strategies were then implemented to collect data and conduct epidemiological investigations for the determination of AIDS incidence trends and to characterize risk behaviors.

As the number of AIDS cases has grown through the years of the epidemic, the number of sources of report for AIDS cases in the District of Columbia has increased as well. The number of sources of report for AIDS cases in the District of Columbia increased through the years of the epidemic as reporting became more routine and AIDS cases abounded. In the beginning of the AIDS crisis, reporting of AIDS cases was largely dependent upon passive surveillance practices or health care provider initiated efforts. Today in the District of Columbia, most cases are identified through active surveillance or surveillance program-initiated efforts. The major target sites for active surveillance efforts include public and private hospitals, clinics (community and hospital-based), physicians, laboratories, registries (communicable diseases including TB and STDs, and cancer), death certificates, medical examiners offices, and special studies.

Information on surrogate indicators of HIV infection (STDs) is also presented. The District of Columbia ranks among the cities in the United States with some of the highest STD morbidities. Until HIV infection surveillance is fully implemented in the District, data for syphilis, chlamydia, and gonorrhea (GC) can show the future trend for HIV. Syphilis is not only mandated to be reported, it is aggressively tracked, and vigilantly surveilled. Syphilis is highly contagious and is an ulcerative STD, signifying increased risk for HIV transmissibility. In fact, the presence of all STDs increases the transmissibility of HIV and the susceptibility to HIV. District law also mandates the reporting of gonorrhea.

Information on Hepatitis A, B, and C along with information on perinatal HIV transmission is presented for the first time in the Epidemiologic Profile. There are data on the incarcerated, sections on co-morbidity, pediatrics, and geographic distribution.

This report not only assesses the distribution of infection/disease in relationship to time and geography, but also defines persons who are at risk for becoming infected with HIV for prevention purposes. As suggested by the CDC guidelines, this epidemiologic profile addresses three key questions:

1. What are the sociodemographic characteristics of the population?
2. What is the impact of HIV/AIDS on the population and who is at risk?
3. What is the geographic distribution of HIV infection?

## **METHODOLOGY**

### **Data Sources, Collection, and Organization**

Some of the data used in this report come from secondary data sources such as sexually transmitted disease (STD) clinic reports and population estimate data. AIDS surveillance data are the only HIV/AIDS related data consistently available nationwide. Hence, the majority of the data for this profile was collected from routine HIV/AIDS surveillance activities. Data were collected, compiled, organized and summarized by geographic area and political jurisdiction (Wards), gender, age, and race/ethnicity. Where possible, behavioral risk categories are presented in the form of figures (epidemic curves, line graphs, pie charts, etc.) and tables. Most numerical comparisons are reported as percentages. Where applicable, medians and ranges are presented for ease of interpretation and understanding.

For purposes of simplifying the presentation of data and describing trends, the cumulative AIDS cases were divided into three meaningful intervals by year of report. The first interval is from 1983 (the year in which reporting was mandated in the District) to 1989, the second interval is from 1990 to 1995 and the third interval is from 1996 to 2000. In some instances, case data is presented in the interval 1998-2000. Over the nearly twenty years of the AIDS epidemic in the District of Columbia, there have been significant expansions of our knowledge base about HIV disease and its natural history. Similarly, the classification system for the collection of AIDS cases and longitudinal data has developed in stages. While trends appeared from the data as extensions of the vectors of infection, sub-epidemics and caveats also emerged. The expansion of the AIDS case definition in 1993 to include laboratory test results of CD4+ counts less than 200 or 14% is the single most defining event in the AIDS surveillance calendar to date.

## **DATA ISSUES**

AIDS surveillance data have been the only HIV-related data consistently available on a population-wide basis in all states by race/ethnicity, gender, age, and exposure category. The extensive surveillance network in place since the early years of the epidemic has yielded a relatively complete and reliable database. However, the success of triple therapy medications and the advent of protease inhibitors and HAART have lead to declines in morbidity and mortality, causing the AIDS trend data to be distorted. This does not necessarily signify significant changes in HIV trends or data; it is simply more difficult to garner HIV-related immunodeficiency. The criteria or case definition used for diagnosing an AIDS case has become less applicable as treatment relies more and more on laboratory findings of encroaching immunodeficiency and detecting viral load instead of outward signs and symptoms. For example, an individual can be asymptomatic and meet the CDC criteria for AIDS, and after treatment *seemingly* revert to a non-AIDS stage. However, once an individual meets the AIDS case definition, they will remain in that classification for surveillance purposes.

District resident AIDS cases continued at approximately the same level (about 1,000 cases reported each year) from the beginning of 1995 to the end of 2000, after a surge of reported cases in 1993 (1,500) and 1994 (1,362) attributable to the expansion of the case definition in 1993. Trends in the District, as well as in the nation, show that the impact of the new medications has caused a decrease in AIDS cases reported in 2000. Fewer HIV-infected people advance to later stages of HIV disease and do not meet the AIDS-defining criteria. Through 2000, AIDS trend data is still valid enough to show changes in the characteristics of HIV-infected persons. This is truer among some sub-populations (e.g., women, injection drug users, and heterosexuals) than among other emerging groups (i.e., adolescents and Hispanics). Thus, to better reflect the characteristics of the newest infections, the majority of the AIDS data in this report will be presented in terms of incident AIDS cases, namely, cases reported between 1996 and 2000. Some other limitations of the AIDS data, as well as its strengths, are discussed below.

According to CDC estimates 90% of the AIDS cases are reported to AIDS surveillance programs nationwide. Thus, AIDS cases tend to be representative of all persons with AIDS. However, it is

essential to note that AIDS cases do not reflect the majority of HIV infections but rather the extent of severe immunosuppression and related illnesses caused by HIV.

Because of the long incubation period between HIV infection and the occurrence of AIDS-defining conditions, AIDS cases do not necessarily represent the characteristics of persons with more recently acquired infections or those recently tested. Nationally, there is a delay between the time an AIDS case is diagnosed and reported or actively ascertained/investigated by the surveillance program. Although the peak level of HIV/AIDS cannot yet be accurately predicted from available data or models, reported cases may level off before actual cases do. Timeliness is a limitation of AIDS case data. Interpretation of trends of reported cases of HIV/AIDS in the future will necessitate careful evaluation of delays in and completeness of reporting, as well as changes in diagnostic practices and therapeutic regimens. However, trends can be identified through analyses of changes over time in the characteristics of persons with AIDS. For example, greater proportionate increases in AIDS cases among women, Blacks, heterosexual contact and Black MSMs in recent years may suggest that greater percentages of new HIV infections are occurring among these subpopulations compared with earlier years.

Some community planning groups have attempted to use HIV counseling and testing data, as well as service provider data, to characterize persons more recently infected with HIV. However, these data were designed to count service units, and were intended neither to capture mutually exclusive patient information nor to meet the rigors of conducting surveillance. The data from each site represent only tests or services performed at that particular site and may contain duplicates of clients. Aggregate HIV service provider data represent the volume of service; medical and non-medical, rendered to HIV infected clients at certain publicly funded programs and thus are not representative of the population at large. Recent HIV testing does not equate with recent HIV infection or transmission.

## **DATA LIMITATIONS AND CAVEATS**

Analysis of AIDS cases by year of diagnosis is affected by routine delays in reporting (time between AIDS diagnosis and report to the health department). Although 50% of the District of Columbia's AIDS cases are reported to AIDS Surveillance within 3 months of diagnosis, with 82% being reported within one year, not all cases diagnosed in 2000 have yet been reported.

The actual 'work' of AIDS surveillance can translate into trends and have a mass effect on the data. An alteration in the case definition, technology, facility solvency, service provision, and/or treatment can change the indications, means, and influx of surveillance work. The expansion of the adult/adolescent AIDS surveillance case definition to include invasive cervical cancer, recurrent pneumonia, pulmonary TB, and laboratory findings of a CD4+ count less than 200 or 14% (the supreme example) was implemented on January 1, 1993. As expected, there were substantial increases in the number of AIDS cases diagnosed and reported in 1993, many retroactively. HIV-infected persons with opportunistic infections or conditions diagnosed before 1993 that did not previously meet the AIDS case definition were suddenly 'reportable' once these conditions were added to the case definition. The CDC estimated early reporting effects of the new case definition to be greater than the long-term reporting effects because prevalent or retroactive as well as incident cases of immunosuppression were reported immediately following implementation of the expanded case definition. After 1994, as expected, the number of reported cases was much smaller than the surge surrounding the implementation of the expanded case criteria.

Caution should be taken when interpreting trends, since many groups will appear to have a declining incidence when post-1993 data are presented. Trends after 1993 reflect the true trend of the epidemic, as stabilization was reached from the immediate surging effects of the 1993 case definition. This report will



present trends through 2000. Note that some cases diagnosed in 2000 are still being collected as of the writing of this report. Trends after 2000 will be dramatically distorted by the declines in AIDS morbidity as a result of the success of the new AIDS medications. As the interval between HIV infection and onset of AIDS becomes longer, the use of protease inhibitors will enable proximal life spans. As HIV-infected individuals will be reservoirs of infection for longer periods of time, secondary prevention education will need to be stepped up.

## **CONSIDERATIONS**

- Almost all data have strengths and limitations and hence should be treated in the light of their purpose and characteristics.
- Small numbers and/or small changes or differences should be interpreted with caution.
- Understand the specifics of data presentation.
- Create awareness among primary health care providers and other data generators of their important role as primary data contributors.
- Always remember what the numbers represent (i.e., number of cases, rates, and percents).

All AIDS cases presented in this epidemiologic profile are based upon AIDS cases reported through December 31, 2000 among persons whose residence was the District of Columbia at the time of initial AIDS diagnosis.

In the District of Columbia, policies and procedures established by the CDC for the assurance of confidentiality and security of highly personal information are strictly enforced. The HIV/AIDS Administration (HAA) has implemented a policy that requires all employees to sign legally binding statements of confidentiality annually and to receive security training to further protect the public against breaches of confidentiality and security. Additionally, all CDC-funded jurisdictions must meet the requirements and security standards set forth in the CDC-issued guidelines for the protection of HIV/AIDS surveillance confidential information and data.

Only aggregated AIDS surveillance data are released so there is nothing to suggest the identity of an individual, even inferentially. Cell sizes less than five (5) are not presented for three-way cross-tabulations of data. Data may either be suppressed or combined with other categories. Aggregation of data (i.e., combining subgroups such as Asian/Pacific Islander and American Indian/Alaskan Natives) is not done so that all the data may be provided and still ensure confidentiality of persons reported with AIDS, not to undermine the importance of any one group. HIV seroprevalence data, since they are derived from double-blinded surveys with unlinked instruments, are presented without suppression of small cells. Bureau of STD Control data are presented according to their data release policy.

## **Question 1 What are the Sociodemographic Characteristics of the Population of the District of Columbia?**

### **1.1 Sociodemographic Characteristics**

- The District of Columbia has a land area of 63 square miles and a population per the Census 2000 of 572, 059. Of the District of Columbia population, of which approximately 61% were Black, 29%

were White, 7% were of Hispanic origin, and 3% were among other race/ethnicities. (The percentages for the sub-populations are based upon estimates due to unavailable data from the Census Bureau.)

- Over half (53%) of the residents of the District of Columbia are female. Those 65 and older account for over 13% of the total population.
- The category for race/ethnicity with the smallest population, classified as ‘Other’ in this report, includes American Indians, Asian/Pacific Islanders, and other minorities and has remained constant.

## Question 2 What is the Impact of HIV/AIDS on the Population and Who is at Risk?

### 2.1 Distribution of AIDS Cases

**Table 1 Alive and Cumulative AIDS Cases by Gender, Race/Ethnicity, Age Group, and Mode of Exposure, and Cumulative Deaths, District of Columbia, Reported through December 31, 2000**

<b>GENDER</b>	<b>ALIVE</b>			<b>CUMULATIVE</b>	
	<b>#</b>	<b>%</b>		<b>#</b>	<b>%</b>
Adult Male	5,092	77		10,537	81
Adult Female	1,465	22		2,331	18
Pediatric	92	1		172	1
<i>Total</i>	6,649	100		13,040	100
<b>RACE/ETHNICITY</b>					
White	1,084	16		2,755	21
Black	5,275	79		9,819	75
Hispanic	251	4		414	3
Asian/Pacific Islander	32	0		42	0
American Indian/Alaskan Native	*	0		5	0
Undisclosed/Unknown	7	0		5	0
<i>Total</i>	6,649	100		13,040	100
<b>AGE GROUP</b>					
0-12	92	1		172	1
13-19	42	1		56	0
20-29	1,044	16		2,018	15
30-39	2,793	42		5,577	43
40-49	2,045	31		3,850	30
50 and Older	633	10		1,367	10
<b>Total</b>	6,649	100		13,040	100

<b>MODE OF EXPOSURE</b>					
Men who have Sex with Men (MSM)	2,808	42		6,514	50
Injection Drug User (IDU) & MSM	252	4		617	5
Male IDU	1,286	19		2,325	18
Female IDU	697	10		1,218	9
Male/Heterosexual Contact	487	7		691	5
Female/Heterosexual Contact	622	9		907	7
Perinatal (Mother-to-Child)	91	1		166	1
Unknown Risk/Other	406	6		602	5
<b>Total</b>	<b>6,649</b>	<b>100</b>		<b>13,040</b>	<b>100</b>
<b>REPORTED DEATHS</b>				<b>6,391</b>	<b>51</b>

SOURCE: DOH/HAA/DOE, 6/01

\*The M.S.A. interjurisdictional surveillance agreement prohibits disclosure of cells with less than five AIDS cases. Therefore, these cells are collapsed into the "Undisclosed" category.

NOTE: Total percentages may not equal 100% due to rounding.

**Table 2 District of Columbia Resident Reported and Diagnosed AIDS cases by Gender, Race/Ethnicity, Age Group, and Mode of Exposure 1998 - 2000**

	<b>REPORTED</b>			<b>DIAGNOSED</b>	
<b>GENDER</b>	<b>#</b>	<b>%</b>		<b>#</b>	<b>%</b>
Adult Male	1,954	73		1,590	71
Adult Female	735	27		624	28
Pediatric	16	1		13	1
<b>Total</b>	<b>2,705</b>	<b>100</b>		<b>2,227</b>	<b>100</b>
<b>RACE/ETHNICITY</b>					
White	353	13		242	11
Black	2,231	82		1,880	84
Hispanic	103	4		90	4
Asian/Pacific Islander	14	1		11	1
American Indian/Alaskan Native	0	0		0	0
Undisclosed/Unknown	4	0		4	0

<i>Total</i>	2 705	100		2 227	100
<b>AGE GROUP</b>					
0-12	15	1		12	1
13-19	15	1		15	1
20-29	370	14		274	12
30-39	1 050	39		846	38
40-49	898	33		767	34
50 and Older	357	13		313	14
<i>Total</i>	2 705	100		2 227	100
<b>MODE OF EXPOSURE</b>					
Men who have Sex with Men	983	36		740	33
Injection Drug User (IDU) & MSM	54	2		40	2
Male IDU	478	18		389	17
Female IDU	290	11		228	10
Male/Heterosexual Contact	219	8		201	9
Female/Heterosexual Contact	335	12		287	13
Perinatal (Mother-to-Child)	15	1		12	1
Unknown Risk/Other	331	12		330	15
<b>Total</b>	2,705	100		2,227	100

SOURCE: DOH/HAA/DOE, 2001

- Cumulative reported cases through December 2000 indicate the effects of the epidemic from the beginning of the collection of data in 1983 (Table 2c).
- Reported cases for the period 1998-2000 indicate the most recent snapshot (Table 2d, first two columns).
- Diagnosed cases for the period 1998-2000 are a more accurate representation of the HIV/AIDS epidemic than cases reported during that period because these are cases that were actually newly diagnosed during that period of time.

Each of the following bullets highlights the categories listed by percentage in the order of “Reported Cases through December 2000,” “Reported cases for the period 1998-2000,” and “Diagnosed cases for the period 1998-2000”:

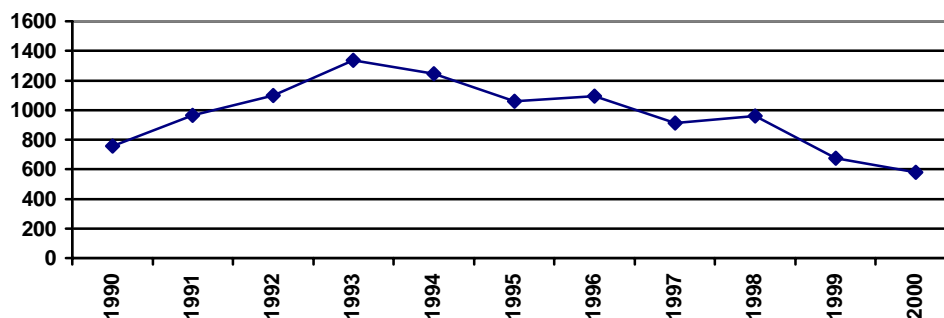
- GENDER: the proportion of females increased from 22% to 27% to 28%.
- RACE/ETHNICITY: the proportion of Blacks increased from 75% to 82% to 84%; the proportion of Hispanics represented 3% to 4% and remain the same for diagnosed cases; Asian/Pacific Islanders reached 1% for both reported and diagnosed cases in the 1998-2000 period and in the total cumulative cases through December 2000 represented 0%.

- AGE: the proportion of those whose age was 40 or over at diagnosis increased from 40% to 44% to 48%.
- MODE: Male heterosexual contact increased from 5% to 8% to 9%; Female heterosexual contact increased from 7% to 12% to 13%.

### ***Epidemiologic Trends Of Aids Cases By Year Of Diagnosis***

The epidemic curve for AIDS cases among residents of the District of Columbia illustrates the number of AIDS cases diagnosed and reported each year. Trends and the natural history of the disease are seen more clearly when looking at AIDS cases by the year of AIDS diagnosis, the year a person with HIV infection was initially diagnosed with AIDS by a physician, than by the year of AIDS case report. However, analysis by year of diagnosis is affected by reporting delays (the time between earliest diagnosis with AIDS and report to the health department), especially among cases diagnosed in the most recent years. Fifty percent (50%) of the District of Columbia's AIDS cases are reported to AIDS Surveillance within 3 months of diagnosis and 82% are reported within one year. Thus, not all cases diagnosed in 2000, a few from 1999 and previous years have yet been reported.

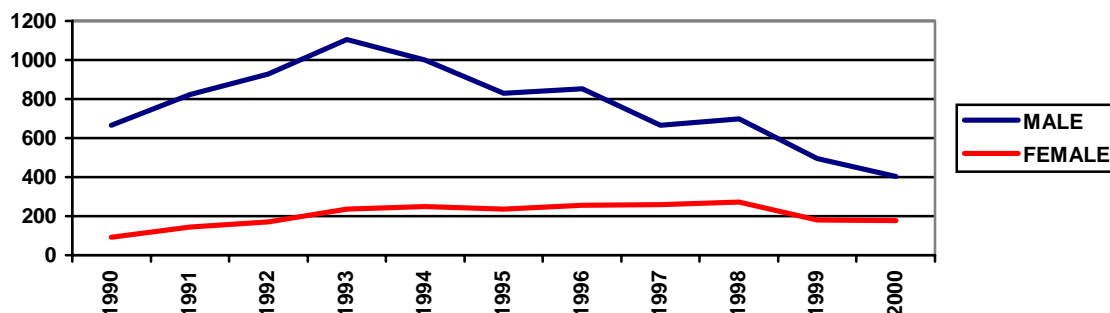
**Figure 1. Adult/adolescent AIDS Cases by Year of Diagnosis  
District of Columbia: 1990-2000**



SOURCE: DOH/HAA/DOE, 2001

- Declining trend for AIDS cases since the peak of cases in 1993 due to the CDC change in the definition for AIDS.
- The decline is seen nationally as well.
- Trends are determined by the diagnosed cases in a population.

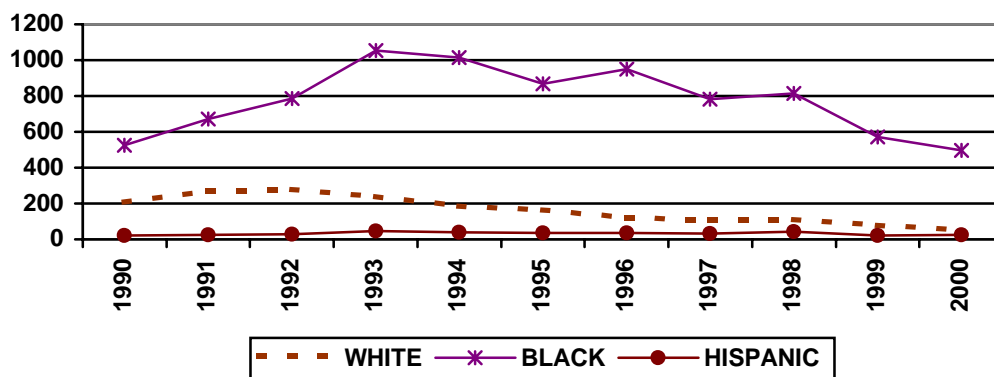
**Figure 2. Adult/adolescent AIDS Cases by Year of Diagnosis by Gender  
District of Columbia: 1990-2000**



SOURCE: DOH/HAA/DOE, 2001

- Female cases in last two years are stable, however, with overall cases decreasing, this implies a relative increase.
- Male cases are decreasing.

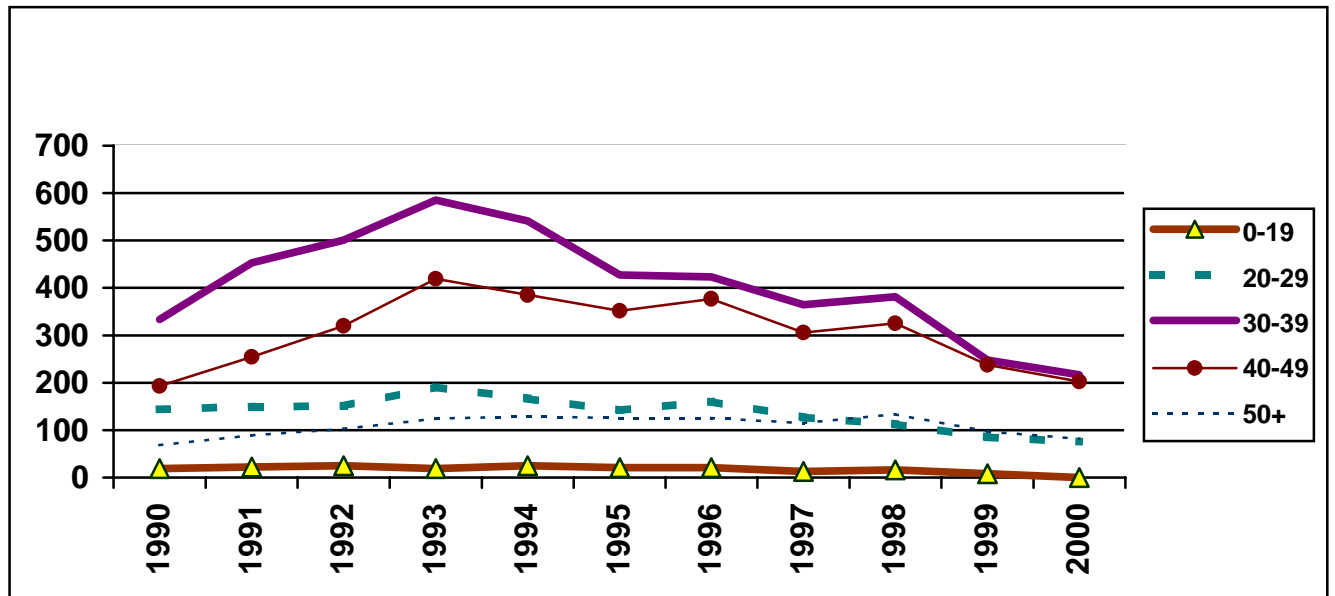
**Figure 3. Adult/adolescent AIDS Cases by Year of Diagnosis and Race/Ethnicity  
District of Columbia: 1990-2000**



SOURCE: DOH/HAA/DOE, 2001

- After a sharp decrease from 1998-99 in Black/African-American cases, there is much less of a decline from 1999-2000.
- Though relatively small in number, Hispanic/Latino cases remain constant, though cases overall are declining. This may indicate that this population is at greater risk for HIV.
- The cases among Whites have steadily decreased over time.

**Figure 3a. Diagnosed AIDS by Age District of Columbia: 1990-2000**



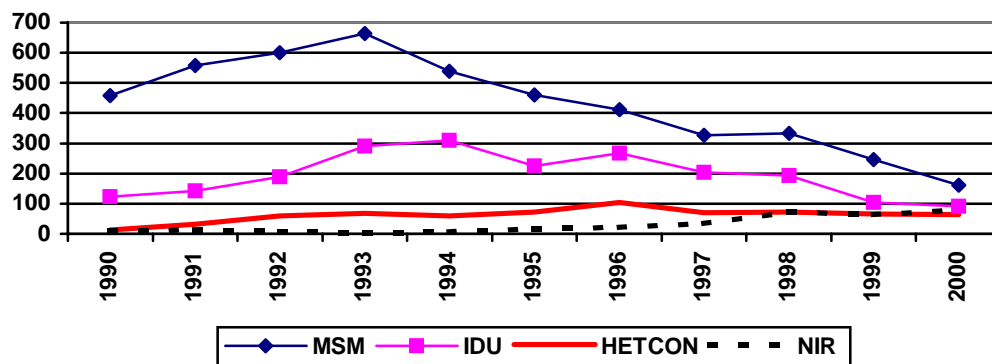
SOURCE: DOH/HAA/DOE, 2001

- Beginning in 1999, the number of AIDS cases for those 30-39 and those 40-49 has remained approximately the same.
- Beginning in 1999, the number of AIDS cases for those 20-29 and those over 50 are the same.
- After a being relatively constant over period of time, the number of AIDS cases for those 0-19 began declining in 1998.

### ***Populations at Risk***

The persons most likely to become infected with HIV are those who engage in high-risk behaviors in communities with a high prevalence of HIV infection. Risk behaviors, for all intents and purposes, are acts that involve having unprotected sex, having multiple sex partners, and using/abusing intravenous drugs. Those acts that involve or result from the use/abuse of non-intravenous drugs, such as crack/cocaine and inhalants, or abuse of alcohol which are also risk behaviors. Generally, when an individual's judgment is impaired and coherence is affected they are at risk. Risk for HIV infection is determined by the frequency with which these behaviors are practiced, combined with the HIV prevalence in the community where it is practiced.

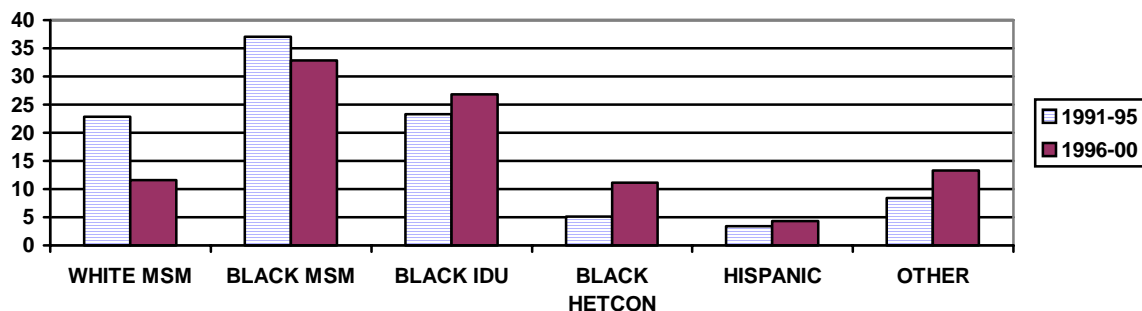
**Figure 4. Adult/adolescent AIDS Cases by Year of Diagnosis  
by Mode of Exposure  
District of Columbia: 1990-2000**



SOURCE: DOH/HAA/DOE, 2001

- In the last two years, the heterosexual contact (Hetcon) and the IDU categories as modes of exposure are converging, while MSM continues to have a declining slope.

**Figure 5. Male Adult/Adolescent AIDS Cases by Year of Diagnosis  
by Race/Mode of Exposure by Percentage  
District of Columbia: 1991-1995/1996-2000**



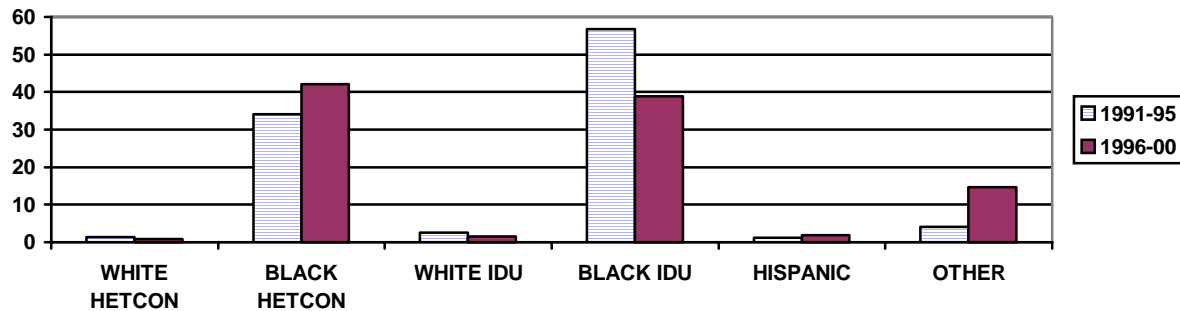
SOURCE: DOH/HAA/DOE, 2001

- Black men whose mode of exposure was heterosexual contact showed the greatest relative increases when comparing their share of newly diagnosed cases with cases diagnosed from 1991 to 1995.
- Black male IDUs accounted for 27% of the newly diagnosed AIDS cases compared to 23% of the 1991-1995 interval cases.
- Diagnosed cases among White MSMs declined proportionately more during the period 1996 to 2000 as compared to the period 1991 to 1995 than among Blacks MSMs. Black MSMs accounted for 37% and 33% of the earlier diagnosed and later diagnosed cases respectively; whereas White MSMs



accounted for 23% of the earlier diagnosed cases and 12% of the cases diagnosed between 1996 and 2000 among adult/adolescent males.

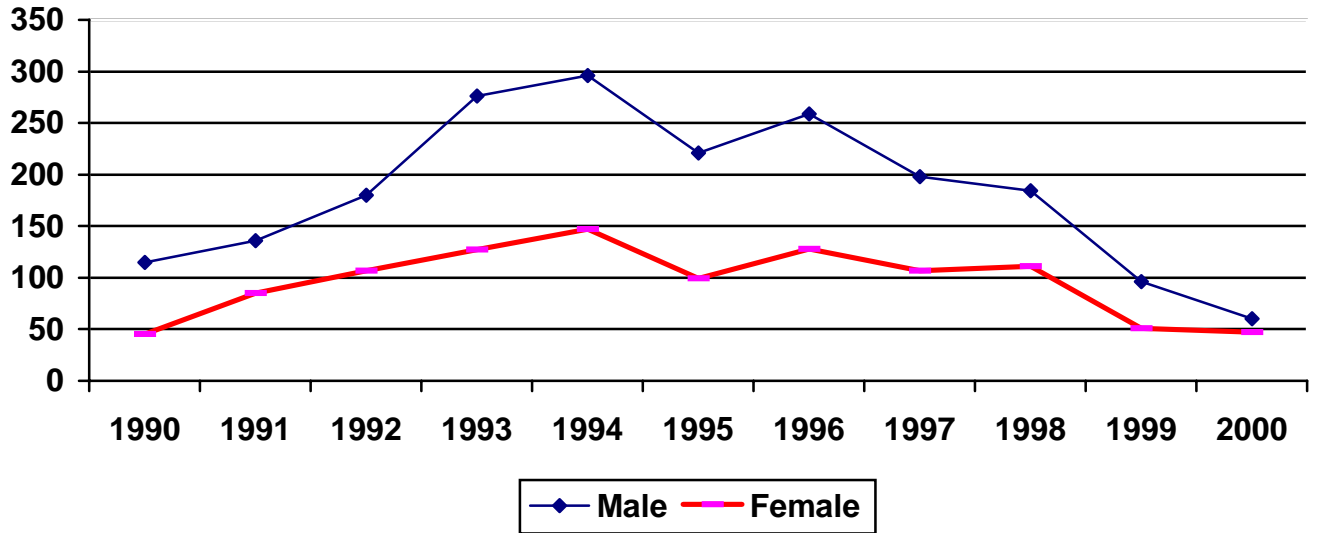
**Figure 6. Female Adult/adolescent AIDS Cases by Year of Diagnosis by Race/Mode of Exposure by Percentage  
District of Columbia: 1991-1995/1996-2000**



SOURCE: DOH/HAA/DOE, 2001

- Among adult/adolescent female diagnosed cases during the period 1996-2000, cases among Black females attributed to heterosexual contact with no other risk identified (HETCON) accounted for 42%, and cases among Black females attributed to IDU 39% of the diagnosed cases.
- The proportion of Black females whose mode of exposure was HETCON was larger among newly diagnosed cases (42%) than among cases diagnosed between 1991 and 1995 (34%).
- Conversely, the proportion of Black IDU females was smaller among more newly (39%) diagnosed cases than among cases diagnosed between 1991 and 1995 (57%).

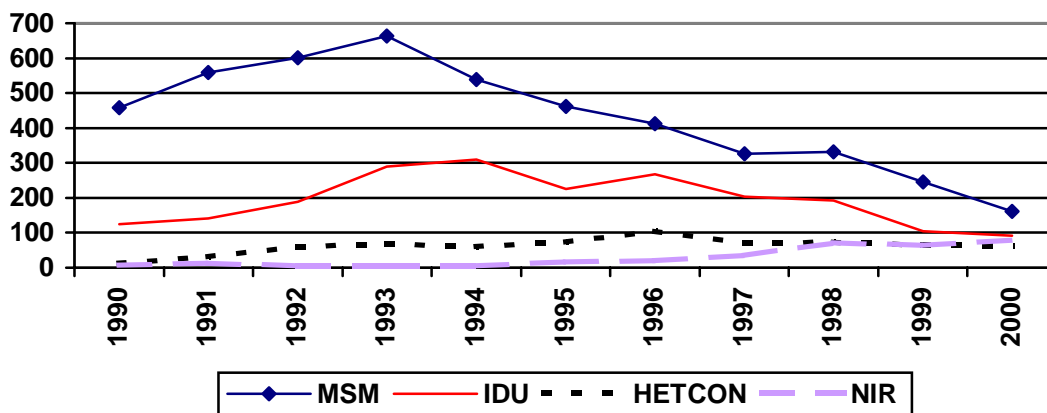
**Figure 7. Adult/Adolescent AIDS Cases Among Black Injection Drug Users (IDUs) by Gender and Year of Diagnosis  
District Columbia: 1990-2000**



SOURCE: DOH/HAA/DOE, 2001

- For diagnosed AIDS cases among Black/African-Americans, cases have increased faster among male IDUs than among female IDUs. However, since 1999 the declining slope for the trend line for cases among males is steeper than among females.
- The diagnosed AIDS cases among females have remained constant in an overall declining pattern may indicate a relative increase.

**Figure 8. Male AIDS Cases by Year of Diagnosis by Mode of Exposure  
District of Columbia: 1990-2000**

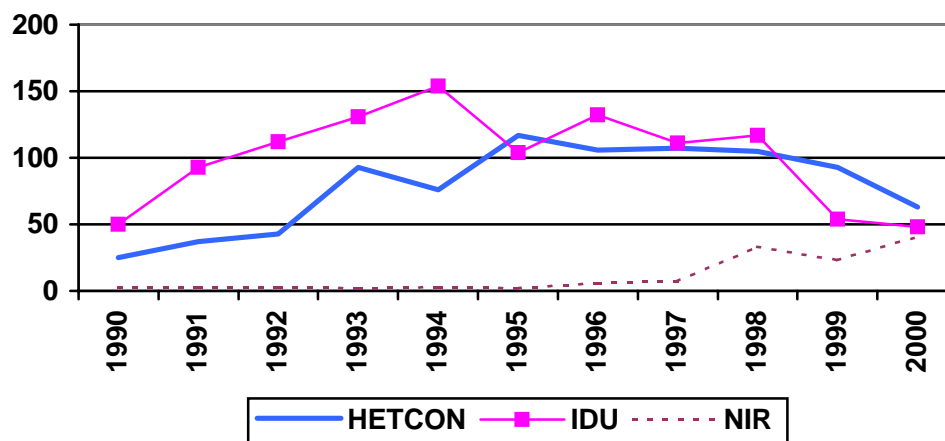


SOURCE: DOH/HAA/DOE, 2001

- Overall, MSM cases among males continue to decline.
- Since 1999, IDU cases have remained stable, which may be indicative of a relative increase.

- Since 1997, HETCON cases have remained stable, which may also be indicative of a relative increase.

**Figure 9. Female AIDS Cases by Year of Diagnosis By Mode of Exposure  
District of Columbia: 1990-2000**



SOURCE: DOH/HAA/DOE, 2001

- As of 1998, the number of HETCON cases surpassed the number of IDU cases.
- AIDS cases reported with No Identified Risk (NIR) have increased substantially in recent years. Over time and after investigation, NIR cases may be reclassified into the exposure categories and may impact the distribution of risk across subpopulations.

## 2.2 HIV/AIDS-Related Deaths

**Table 3 AIDS Deaths by Demographic Characteristics and Year of Death  
Washington, D.C., 1996-1999**

Characteristics	YEAR OF DEATH			
	1996	1997	1998	1999
	# (%)	# (%)	# (%)	# (%)
<b>GENDER</b>				
Male	437 (79)	243 (77)	190 (73)	155 (73)
Female	117 (21)	74 (23)	69 (27)	57 (27)
TOTAL	554 (100)	317 (100)	259 (100)	212 (100)
<b>RACE/ETHNICITY</b>				
White	94 (17)	31 (10)	26 (10)	15 (7)
Black	449 (81)	274 (86)	222 (85)	191 (90)
Hispanic	11 (2)	12 (4)	8 (3)	6 (3)
Other	0 (0)	0 (0)	3 (1)	0 (0)
TOTAL	554 (100)	317 (100)	259 (100)	212 (100)
<b>AGE GROUP</b>				
<15	5 (1)	4 (1)	7 (3)	2 (1)

15-24	20 (4)	11 (3)	9 (3)	9 (4)
25-34	170 (31)	85 (27)	71 (27)	44 (21)
35-44	222 (40)	130 (41)	94 (36)	86 (41)
45-54	102 (18)	64 (20)	62 (24)	52 (25)
55-64	27 (5)	19 (6)	10 (4)	15 (7)
>65	8 (1)	4 (1)	6 (2)	4 (2)
TOTAL	554 (100)	317 (100)	259 (100)	212 (100)

SOURCE: DOH/HAA/DOE, 2001

### HIV/AIDS related Deaths by Demographic Characteristics by Year of Report 1996 -1998

Comparison of mortality data during the years of 1996-1999, the most recent years with the large majority of deaths reported, is as follows:

- Deaths declined in 1999 by 62% relative to 1996. Deaths among males declined 65%; however, deaths among females declined 51%.
- In 1996, Blacks (81%) accounted for the majority of deaths, followed by Whites (17%), and Hispanics (2%). In 1999, deaths among Blacks (90%) increased proportionately compared to deaths among Whites (7%). By 1999, Hispanic deaths had increased proportionately to 3%.
- Analysis of AIDS death data by age group indicated the highest occurrence among those 35-44 (40% of deaths in 1996 compared to 52% in 1999)
- In both years, the great majority of deaths occurred in the age groups of 25 to 54, accounting for 89% in 1996 and 87% in 1999.

**Table 4**

#### TEN LEADING CAUSES OF DEATH DISTRICT OF COLUMBIA RESIDENTS, 1998

CAUSES OF DEATH	NUMBER			
	Male	Female	Total	% TOTAL
HEART DISEASE	1,523	317	1,840	25
CANCER	1,350	291	1,641	23
CEREBROVASCULAR DISEASE	303	100	403	6
<b>HUMAN IMMUNODEFICIENCY</b>	229	68	297	4
PNEUMONIA AND INFLUENZA	246	29	275	4
HOMICIDE AND LEGAL INTERVENTION	218	8	226	3
DIABETES MILLITUS	195	27	222	3
ACCIDENTS AND ADVERSE EFFECTS	180	34	214	3
CHRONIC OBS. PULMONARY DISEASE	158	56	214	3
HYPERTENSION	150	25	175	2
Subtotal: TEN LEADING CAUSES	4,552	955	5,507	76
<b>TOTAL: ALL CAUSES OF DEATH</b>	<b>5,998</b>	<b>1,237</b>	<b>7,235</b>	<b>100</b>

SOURCE:: DOH/Center for State Health Statistics, 2001

**Table 5**

CAUSES OF DEATH	DC	WARDS - Percentage Total Ward Deaths							
(ICD-9)		1	2	3	4	5	6	7	8
HEART DISEASE	25.4	27.5	25.9	26.5	26.9	25.7	22.0	25.8	21.1
CANCER	22.5	22.2	23.0	24.4	25.1	21.5	21.5	21.4	19.9
CEREBROVASCULAR DISEASE	5.1	4.3	4.6	7.7	5.5	5.1	4.2	4.4	4.6
HUMAN IMMUNODEFICIENCY VIRUS	4.1	5.9	4.9	.5	1.9	5.1	7.1	3.7	5.6
PNEUMONIA AND INFLUENZA	3.8	2.6	3.4	6.9	4.8	3.6	2.5	3.4	2.8
HOMICIDE AND LEGAL INTERVENTION	3.6	3.1	1.7	.2	2.2	4.0	4.9	5.4	9.0
DIABETES MELLITUS	3.2	2.3	2.3	2.1	3.7	2.9	3.3	4.4	4.6
ACCIDENTS AND ADVERSE EFFECTS	3.0	3.4	2.6	1.9	2.6	2.6	3.9	3.2	4.4
CHRONIC OBS. PULMANORY DISEASE	2.6	3.1	2.9	4.9	1.8	1.9	2.9	2.0	2.2
HYPERTENSION	2.5	2.1	2.8	1.9	2.0	2.8	3.6	3.0	1.6
ALL OTHER CAUSES	24.2	23.5	25.9	22.8	23.5	24.8	24.1	23.3	24.2
<b>ALL CAUSES</b>	<b>100</b>	<b>10.2</b>	<b>10.9</b>	<b>10.6</b>	<b>17.6</b>	<b>16.2</b>	<b>12.1</b>	<b>14.0</b>	<b>8.4</b>

SOURCE:: DOH/Center for State Health Statistics, 2001

- Deaths due to HIV was the 4<sup>th</sup> leading cause of death in the District of Columbia
- Deaths due to HIV was the 3<sup>rd</sup> leading cause of death for Blacks or African-Americans
- Ward 6 was highest and Ward 3 was the lowest, as a percentage of HIV as a cause of death within each ward.
- HIV/AIDS was the leading cause of death for individuals between 25-44 years of age for 1997 and 1998.
- In 1997 HIV/AIDS deaths was followed by homicide, cancer, heart disease and accidents and adverse effects; in 1998, HIV/AIDS was followed by homicide, cancer, accidents and adverse effects and heart disease. Thus HIV/AIDS remained the leading cause of death; however, the number of deaths due to accidents and adverse effects was higher than that for heart disease in 1998.

### ***Deaths By Race/Ethnicity***

#### **Blacks or African-Americans**

- HIV/AIDS was the leading cause of death for Black or African-American males between 25-44 years of age for 1997.
- HIV/AIDS was the second leading cause of death for Black or African-American males between 25-44 years of age for 1998.
- HIV/AIDS was the leading cause of death for Black or African-American females between 25-44 years of age for 1997 and 1998.

#### **Whites**

- HIV/AIDS was the leading cause of death for white males between 25-44 for 1997 and 1998.
- HIV/AIDS was the fourth leading cause of death for white females for 1997 and 1998.

### 2.3 What is the Impact of HIV Infection on the District of Columbia?

Estimates of HIV prevalence (number of persons living with HIV) among adults/adolescents persons older than 12 years) can be calculated for the District of Columbia based a method recommended by CDC: utilizing AIDS case prevalence.

In 1999, 45,000 AIDS cases were reported in the United States (50 states and the District of Columbia). Of these, 835 AIDS cases, or 1.9 percent, were reported in the District of Columbia (HIV/AIDS Surveillance Report, 1999 Year-End Edition, Vol. 11, No. 2, CDC): (1) using the latest revised estimate of persons infected with HIV nationally, 650,000-900,000 (“Prevalence of HIV Infection in the United States, 1984 to 1992”; JAMA 1996 July 10, 276(2): 126-31), (2) using the estimated U.S. population of 275 million (4) and applying the 2.3% that DC makes up of the latest reported AIDS cases in the U. S., we get a estimated range of 14,950 to 20,700 of adults 13 and older infected with HIV in the District of Columbia.

### 2.4 Summary of Current HIV Prevalence Estimates

**Table 6**

Extrapolation from:	HIV Prevalence Estimates:
AIDS Incidence information for the District of Columbia Using National AIDS data	14,950-20,700

SOURCE: DOH/HAA/DOE, 2001

### 2.5 Sexually Transmitted Diseases

As more worldwide studies have been completed, the direct linkages of sexually transmitted diseases (STDs) to the transmission of HIV have become increasingly recognized. Both “ulcerative” STDs, such as chancroid, syphilis and genital herpes, and “inflammatory” STDs, such as gonorrhea, chlamydia, and trichomoniasis, increase the risk of HIV infection. It has also been found that the early detection and treatment of STDs can interrupt the sexual transmission of HIV. Numerous studies support the concept that STDs increase both the infectivity of and the susceptibility to HIV (The Hidden Epidemic, p 6.). This is critical because persons with STDs represent a group of sexually active persons who have recently had unprotected intercourse with other persons who have STDs, some of whom may also be infected with HIV.

In the District of Columbia, the STD rates are high. Rates shown are per 100,000 populations.

**Table 7**

Sexually Transmitted Diseases	National Ranking for DC STDs Rates
Gonorrhea	3rd
Syphilis (Primary & Secondary)	8th
Chlamydia	12th

SOURCE: DOH/ Bureau of STD Control, 2001

**Table 8**

<b>Sexually Transmitted Diseases</b>	<b>DC Rate</b>	<b>National Rate</b>
Gonorrhea	852.2	132.9
Syphilis (Primary & Secondary)	15.3	2.6
Chlamydia	601.6	236.6

SOURCE: DOH/ Bureau of STD Control, 2001

- The rate of syphilis and gonorrhea among females, especially among females in the 10-19 age group, continues to be of particular concern.
- For prevention planning purposes, communities with high STD rates are at increased risk for the introduction, acquisition, and spread of HIV infection.

### **Primary and Secondary Syphilis Cases and Rates/100,000 by Gender, Race/ Ethnicity 1996-2000**

- From 1997 to 2000, 289 primary and secondary syphilis cases were reported among District residents.
- The cases among males were 55% and females accounted for 45%.
- Annual incidence of syphilis among males ranged from 24/100,000 in 1997 to 14/100,000 in 2000.
- Among females, annual incidence in 1997 was 21/100,000 and in 2000 was 5/100,000.
- Blacks or African-Americans accounted for 96% of both the male and female cases from 1997-2000.
- There has been a decrease in congenital syphilis cases in 1998 compared to previous years.

#### ***The distribution of the recent syphilis cases by age.***

- In persons 20-24 years: 7%, in those 30-39 years: 41%, and in those over 40: 33%
- Overall, those most affected and with higher prevalence were aged 25 years or more, accounting for 85% of the District syphilis cases.

**Table 9                      Primary and Secondary Syphilis Cases and Rates /100,000 by Year, Gender, and Race/Ethnicity, Washington, D.C., 1996-1999**

<b>RACE/ ETHNICITY</b>	<b>1996</b>		<b>1997</b>		<b>1998</b>		<b>1999</b>	
	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
<b>Male</b>								
White	1	1.4	1	1.4	1	1.4	0	0.0
Black	56	35.1	58	38.8	44	30.0	21	14.3
Hispanic	0	0.0	0	0.0	1	5.2	0	0.0
Other	2	24.0	0	0.0	1	14.1	0	0.0
Unknown	0	*	0	*	0	*	0	*
Subtotal	59	25.0	59	23.8	47	19.2	21	8.6
<b>Female</b>								
White	0	0.0	1	1.3	0	0.0	1	1.3
Black	56	31.4	56	31.4	33	19.0	23	13.2
Hispanic	0	0.0	0	0.0	0	0.0	0	0.0

Other	1	10.2	0	0.0	1	10.2	0	10.7
Unknown	0	*	1	8	0	*	0	*
Subtotal	57	16.3	58	20.7	34	12.2	24	8.6
<b>TOTAL</b>	116	NA	117	22.1	81	15.5	45	8.6

SOURCE: DOH/ Bureau of STD Control, 2001



**Table 10      Primary and Secondary Syphilis Cases by Gender, Race/Ethnicity, and Age Group, Washington, D.C., Reported 1997-2000**

<i>Characteristics</i>	<i># (%)</i>
<b>RACE/ETHNICITY</b>	
<b>MALE</b>	
White	4 (2)
Black	152 (95)
Hispanic	2 (1)
Other	1 (1)
Unknown	1 (1)
Subtotal	160 (100)
<b>FEMALE</b>	
White	2 (2)
Black	124 (96)
Hispanic	0 (0)
Other	1 (1)
Unknown	2 (2)
Subtotal	129 (100)
<b>AGE GROUP</b>	
<20	23 (8)
20 - 24	21 (7)
25 - 29	32 (11)
30 - 39	119 (41)
40+	94 (33)
Unknown	0 (0)
<b>TOTAL</b>	289 (100)

SOURCE: DOH/Bureau of STD Control, 2001

### **Gonorrhea Cases and Percentages by Gender, Race/Ethnicity, and Age Group from 1996-2000**

- 19,790 gonorrhea cases were reported in the District of Columbia from 1996-2000.
- 57% were male and 43% were female.
- Whites accounted for 1%, Blacks or African-Americans accounted for 62%, Hispanics or Latinos account for less than 1%, and the category of “Other/Unknown” accounted for 37%.
- Proportionately, gonorrhea cases have declined by 37% since 1996, but the number of reported cases rose slightly (by 150) from 1996 to 1997.
- In 1989, for every female diagnosed with gonorrhea, there were 2.8 males. In 2000, there were only 1.1 males diagnosed per every female.
- Adolescents and young adults are substantially affected by gonorrhea when compared to other age groups.

**Table 11      Gonorrhea Cases and Percentages by Year, Gender, and Race/Ethnicity, and Age Group, Washington, D.C., 1996-2000**

Characteristics	YEAR				
	1996	1997	1998	1999	2000
	# (%)	# (%)	# (%)	# (%)	# (%)
<b>GENDER</b>					
Male	2,581 (59)	2,638 (58)	2,604 (58)	2,021 (63)	1,463 (58)
Female	1,826 (41)	1,919 (42)	1,904 (42)	1,515 (37)	1,319 (42)
TOTAL	4,407(100)	4,557 (100)	4,508(100)	3,536 (100)	2,782 (100)
<b>RACE/ETHNICITY</b>					
White	35 (0)	38 (1)	17 (0)	15 (0)	57 (2)
Black	2,888 (66)	2,812 (62)	2,655 (59)	2,129 (60)	1,743 (62)
Hispanic	6 (0)	13 (0)	9 (0)	26 (0)	24 (1)
Other/Unknown	1,478 (34)	1,694 (37)	1,827 (41)	1,366 (39)	958 (34)
TOTAL	4,407(100)	4,557 (100)	4,508 (100)	3,536 (100)	2,782 (100)
<b>AGE GROUP</b>					
0-9	23 (1)	15 (0)	23 (1)	12 (0)	9 (0)
10-14	107 (2)	97 (2)	93 (2)	79 (2)	63 (2)
15-19	1,184 (27)	1,228 (27)	1,188 (26)	916 (26)	718 (26)
20-24	1,019 (23)	1,098 (24)	1,142 (25)	946 (27)	696 (25)
25-29	726 (17)	714 (16)	745 (17)	577 (16)	404 (15)
30-34	503 (11)	502 (11)	454 (10)	379 (11)	304 (11)
35-44	573 (13)	570 (13)	572 (13)	464 (13)	404 (15)
45+	195 (4)	248 (5)	230 (5)	155 (4)	135 (5)
Unknown	77 (2)	85 (2)	61 (1)	8 (0)	39 (1)
TOTAL	4,407(100)	4,557 (100)	4,508 (100)	3,536 (100)	2,772 (100)

SOURCE: DOH/ Bureau of STD Control, 2001

### **Chlamydia Cases and Percentages by Gender, Race/Ethnicity, and Age Group from 1996-2000**

- Chlamydia is a major source of pelvic inflammatory disease (PID) and infertility in women.
- Between 1996 and 2000, 14,187 chlamydia cases were reported among District residents.
- 87% were among females and 13% were among males (a ratio of approximately 7 females to 1 male)
- Blacks accounted for 42%, Whites and Hispanics 1% each, and Other or race/ethnicity unknown category 56%. (NOTE: For the entire period from 1996 to 2000, other/unknown race/ethnicity values, ranging from 25% to 66% cannot be interpreted since there must have been a data deficiency/collection issue.)
- By age, 45% of cases were in persons under 20, 42% among those 20-29, and 8% among those 30-39 years of age. (Note: The overall increase in the number of cases of chlamydia may not only be due to the increase in the spread of the infection, but also the increase in the amount of testing)
- Adolescent women may have a physiologically increased susceptibility to infection due to increased cervical ecotopy and lack of immunity.

**Table 12 Chlamydia Cases and Percentages by Year, Gender, and Race/Ethnicity, and Age Group, Washington, D.C., 1996-2000**

Characteristics	YEAR				
	1996	1997	1998	1999	2000
	# (%)	# (%)	# (%)	# (%)	# (%)
<b>GENDER</b>					
Male	217 (11)	425 (14)	460 (14)	317 (12)	404 (13)
Female	1,701 (85)	2,642 (86)	2,722 (86)	2,403 (88)	2,800 (87)
Unknown	80 (4)	0 (0)	0 (0)	0 (0)	16 (0)
<b>TOTAL</b>	<b>1,998 (100)</b>	<b>3,067 (100)</b>	<b>3,182 (100)</b>	<b>2,720 (100)</b>	<b>3,220 (100)</b>
<b>RACE/ETHNICITY</b>					
White	1 (0)	18 (1)	19 (1)	21 (1)	23 (1)
Black	1,490 (75)	1,108 (36)	1,043 (33)	1,096 (40)	1,269 (39)
Hispanic	0 (0)	8 (0)	18 (1)	30 (1)	41 (1)
Other/Unknown	507 (25)	1,933 (63)	2,102 (66)	1,573 (58)	1,887 (59)
<b>TOTAL</b>	<b>1,998 (100)</b>	<b>3,067 (100)</b>	<b>3,182 (100)</b>	<b>2,720 (100)</b>	<b>3,220 (100)</b>
<b>AGE GROUP</b>					
0-19	885 (44)	1,427 (47)	1,490 (47)	1,222 (45)	1,336 (41)
20-29	804 (40)	1,196 (39)	1,300 (41)	1,182 (43)	1,445 (45)
30-39	155 (8)	225 (7)	248 (8)	229 (8)	336 (10)
40-44	22 (1)	38 (1)	39 (1)	30 (1)	44 (1)
45+	30 (2)	51 (2)	51 (2)	54 (2)	57 (2)
Unknown	102 (5)	130 (4)	54 (1)	3 (0)	2 (0)
<b>TOTAL</b>	<b>1,998 (100)</b>	<b>3,067 (100)</b>	<b>3,182 (100)</b>	<b>2,720 (100)</b>	<b>3,220 (100)</b>

SOURCE:DOH/ Bureau of STD Control, 2001

## Hepatitis A, B and C

“As the classic opportunistic infections that were the hallmark of HIV/AIDS in the first decade of the epidemic in the United States have become less and less frequent in the era of highly active antiretroviral therapy (HAART) and widespread use of opportunistic infection prophylaxis (at least in those populations that access medical care), attention has turned to viral co-pathogens that increasingly complicate the treatment of HIV disease – notably, those causing hepatitis B virus and hepatitis C virus (HCV).” (*Does HCV Accelerate HIV Disease Progression?* Michael L. Tapper, M.D., 8<sup>th</sup> Conference on Retroviruses and Opportunistic Infections, February 6, 2001)

Viral hepatitis A, B, and C can be transmitted sexually. It infects the liver and directly damages the liver tissue. The interactions between the hepatitis viruses and HIV are complex and still incompletely understood.

### Reporting and Screening

The Centers for Disease Control and Prevention (CDC) only requests reports of acute hepatitis A, B, and C. However, there is more chronic than acute Hepatitis reported and it is difficult to diagnose. “Hepatitis reporting is very variable,” per the Bureau of Epidemiology and Disease Control of the D.C. Department of Health.

Since February 2001, routine screening for hepatitis A, B, and C has been completed at intake into drug treatment facilities by the Addiction Prevention and Rehabilitation Administration (APRA) of the D.C. Department of Health. Those patients found to be negative for hepatitis A and B are offered the vaccines against both HAV and HBV; there is no vaccine for hepatitis C. From the initiation of hepatitis screening in February 2001 through the end of May 2001, 343 chronic hepatitis C cases were reported to the Bureau of Epidemiology and Disease Control of the Department of Health. Injection drug users and cocaine users sharing common straws had the highest number of reported cases of hepatitis C.

Also since February 2001, the Bureau of STD of the D.C. Department of Health conducted a hepatitis prevalence study and a pilot for routine hepatitis A, B, and C screening to offer hepatitis A and hepatitis B vaccine.

## Hepatitis A

- Viral hepatitis A, known as Infectious Hepatitis, Epidemic Hepatitis, and epidemic jaundice, is a positive-strand RNA virus. Hepatitis A is a disease most common among school-aged children and young adults.
- The mode of transmission of hepatitis A is person-to-person by the fecal-oral route. The infectious agent is found in feces.
- Exposure to viral hepatitis A can occur during oral sex, “rimming,” or contact with excretions containing shed virus. (Douglas J. Ward, M.D., Infectious Diseases Specialist, Washington, D.C., 2001)
- Nationally, less than 5% of acute Hepatitis A infections are transmitted through fecal-oral contact during sexual intercourse, mostly among men who have sex with men (CDC, 1994b; CDC, Hepatitis Branch, 1995). (The Hidden Epidemic, p. 33)

**Table 13**

<b>Hepatitis A: Acute and Non-Acute Cases by Race/Ethnicity, District of Columbia, Reported in 2000</b>			
<b>RACE/ETHNICITY</b>	<b>DIAGNOSIS</b>		
	<b>Acute # (%)</b>	<b>Non-Acute # (%)</b>	<b>TOTAL # (%)</b>
<b>Black</b>	14 (35)	104 (60)	118 (55)
<b>White</b>	23 (58)	44 (25)	67 (31)
<b>Hispanic</b>	1 (3)	4 (2)	5 (2)
<b>Asian/ Pacific Islander</b>	1 (3)	1 (1)	2 (1)
<b>Other/Unknown</b>	1 (3)	20 (12)	21 (10)
<b>TOTAL</b>	40 (100)	173 (100)	213 (100)

SOURCE: DOH/Bureau of Epidemiology and Disease Control, 2001

**Table 14**

<b>Hepatitis A: Acute and Non-Acute Cases by Gender, District of Columbia, Reported in 2000</b>			
<b>GENDER</b>	<b>DIAGNOSIS</b>		
	<b>Acute # (%)</b>	<b>Non-Acute # (%)</b>	<b>TOTAL # (%)</b>
<b>Male</b>	34 (85)	113 (65)	147 (69)
<b>Female</b>	6 (15)	59 (34)	65 (31)
<b>Unknown</b>	0 (0)	1 (1)	1 (0)
<b>TOTAL</b>	40 (100)	173 (100)	213 (100)

SOURCE: DOH/Bureau of Epidemiology and Disease Control, 2001

- In the District of Columbia, the 1999 rate per 10,000 population for acute hepatitis A is 1.13, the highest rate out of acute cases of hepatitis A, B, and C.

**Table 15**

<b>Acute Hepatitis A by Race and Year of Report, District of Columbia, 1993-1999</b>							
<b>RACE/ETHNICITY</b>	<b>YEAR OF REPORT</b>						
	<b>1993 # (%)</b>	<b>1994 # (%)</b>	<b>1995 # (%)</b>	<b>1996 # (%)</b>	<b>1997 # (%)</b>	<b>1998 # (%)</b>	<b>1999 # (%)</b>
<b>Black</b>	38 (88)	39 (74)	13 (87)	27 (84)	24 (80)	13 (72)	15 (25)
<b>White</b>	4 (9)	11 (21)	2 (13)	4 (13)	4 (13)	4 (22)	32 (54)
<b>Hispanic</b>	1 (2)	1 (2)	0 (0)	0 (0)	1 (3)	1 (6)	2 (3)
<b>Asian/ Pacific Islander</b>	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<b>Other/Unknown</b>	0 (0)	1 (2)	0 (0)	1 (3)	1 (3)	0 (0)	10 (17)
<b>TOTAL</b>	43 (100)	53 (100)	20 (100)	39 (100)	36 (100)	66 (100)	59 (100)

<b>Acute Hepatitis A by Gender and Year of Report, District of Columbia, 1993-1999</b>							
<b>GENDER</b>	<b>YEAR OF REPORT</b>						
	<b>1993 # (%)</b>	<b>1994 # (%)</b>	<b>1995 # (%)</b>	<b>1996 # (%)</b>	<b>1997 # (%)</b>	<b>1998 # (%)</b>	<b>1999 # (%)</b>
<b>Female</b>	24 (56)	25 (47)	4 (27)	16 (50)	14 (47)	8 (44)	10 (17)
<b>Male</b>	19 (44)	28 (53)	11 (73)	16 (50)	16 (53)	10 (56)	48 (81)
<b>Unknown</b>	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)
<b>TOTAL</b>	43 (100)	53 (100)	20 (100)	39 (100)	36 (100)	66 (100)	59 (100)

SOURCE: DOH/Bureau of Epidemiology and Disease Control, 2001

## Hepatitis B

Viral Hepatitis B is known as Type B Hepatitis, Serum Hepatitis, and Homologous serum jaundice. In North America, Hepatitis B infection is most common in young adults.

- Of the 501 reports of HBV in District residents for the year 2000, the majority (405) were chronic HBV, 35 were acute infections, and 61 remain status pending. The data for 2000 are not yet complete.
- In 1999, the age group 30-39 had the overall highest incidence of acute hepatitis B in District residents. The second highest age group was 20-24.
- An estimated 15%-20% of persons with chronic HBV infection will die prematurely of either cirrhosis or primary hepatocellular carcinoma, or liver cancer. HBV may be the cause of up to 80% of all cases of liver cancer worldwide, second only to tobacco among known human carcinogens.
- The modes of transmission of HIV and Hepatitis B are similar. Blood, saliva, semen, and vaginal fluids have been shown to be infectious with Hepatitis B. Percutaneous and permucosal exposure to blood or serous fluids, contaminated and inadequately sterilized syringes and needles (occasionally at tattoo parlors and acupuncturists), and sexual and perinatal exposure are all routes of infection with Hepatitis B.
- "STDs such as HIV infection and hepatitis B virus infection are more easily acquired by rectal intercourse than by vaginal intercourse." (The Hidden Epidemic, p. 72)
- Making HBV more infectious than and setting it apart from HIV, HBV is stable on environmental surfaces for > 7 days, while HIV lives only a few hours outside the body. HBV transmission and indirect inoculation can occur from exposure to inanimate objects with HBV on them. In about 35% of cases, no transmission source can be identified.
- Chronic HBV infection is common in persons with immunodeficiency.

**Table 16**

<b>Acute Hepatitis B by Race and Year of Report, District of Columbia, 1993-1999</b>							
<b>RACE/ETHNICITY</b>	<b>YEAR OF REPORT</b>						
	<b>1993 # (%)</b>	<b>1994 # (%)</b>	<b>1995 # (%)</b>	<b>1996 # (%)</b>	<b>1997 # (%)</b>	<b>1998 # (%)</b>	<b>1999 # (%)</b>
<b>Black</b>	38 (88)	39 (74)	13 (87)	27 (84)	24 (80)	13 (72)	15 (60)
<b>White</b>	4 (9)	11 (21)	2 (13)	4 (13)	4 (13)	4 (22)	7 (28)
<b>Hispanic</b>	1 (2)	1 (2)	0 (0)	0 (0)	1 (3)	1 (6)	1 (4)
<b>Asian/ Pacific Islander</b>	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	2 (8)
<b>Other/Unknown</b>	0 (0)	1 (2)	0 (0)	1 (3)	1 (3)	0 (0)	0 (0)
<b>TOTAL</b>	43 (100)	53 (100)	15 (100)	32 (100)	30 (100)	18 (100)	25 (100)

SOURCE: DOH/Bureau of Epidemiology and Disease Control, 2001

**Table 17**

<b>Acute Hepatitis B by Gender and Year of Report, District of Columbia, 1993-1999</b>							
<b>GENDER</b>	<b>YEAR OF REPORT</b>						
	<b>1993 # (%)</b>	<b>1994 # (%)</b>	<b>1995 # (%)</b>	<b>1996 # (%)</b>	<b>1997 # (%)</b>	<b>1998 # (%)</b>	<b>1999 # (%)</b>
<b>Female</b>	24 (56)	25 (47)	4 (27)	16 (50)	14 (47)	8 (44)	11 (44)
<b>Male</b>	19 (44)	28 (53)	11 (73)	16 (50)	16 (53)	10 (56)	14 (56)
<b>TOTAL</b>	43 (100)	53 (100)	15 (100)	32 (100)	30 (100)	18 (100)	25 (100)

SOURCE: DOH/Bureau of Epidemiology and Disease Control, 2001

## Hepatitis C

Hepatitis C virus (HCV) has only been identified for approximately one decade. In contrast to HIV, only a minority of HCV-infected individuals progress to fulminant disease (liver failure) and death. However, "Liver disease is the number-one cause of non-AIDS-related death in patients with HIV disease." (*Hepatitis C: The Silent Epidemic Affects Diverse Populations*, by David Bernstein, M.D., May 22, 2000, Medscape)

- The incidence of hepatocellular carcinoma in African-Americans or Blacks is 2 times greater than in Whites.
- The prevalence of hepatitis C has been shown to be greater in African Americans than in whites in the United States.
- Referring to HCV, "The efficiency of sexual and perinatal transmission of this virus, however, seems to be low (Alter and Mast, 1994)." (*The Hidden Epidemic*, p. 33).
- Few cases of hepatitis C are diagnosed in the acute phase.
- The incidence of infection with HCV is rising rapidly. More than 40% of those infected do not know how they contracted HCV.
- Primarily spread through blood, HCV is the most common blood-borne infection in the US. Risk factors include intravenous drug use, blood or blood-product transfusions (received previous to blood supply screening), needle-stick injuries, and multiple sex partners.
- Currently, the highest rate of acute infection with HCV is among injecting drug users.
- Because of the similar transmission routes, the incidence of co-infection with HCV and HIV is increasing.

- “HCV infection is four times more prevalent than HIV infection in the US.” (*Nutrition and Hepatitis C Virus Infection*, Jennifer Muir Bowers, M.S., R.D., Numedix, Volume 3, Issue 2, p. 28-29.)
- “Hepatitis C virus infection is found in people of all ages. In the general population, the highest prevalence rates of chronic HCV infection are found among those aged 30-49 years and among males. However, the highest incidence of acute hepatitis C is among 20-39 year olds.” (<http://www.cdc.gov/iceid/> p.49)

## **2.6 AIDS among Adult/Adolescent Women**

Since 1993, AIDS cases reported among women have grown at a faster rate than among men.

Adult/adolescent women with AIDS in the District of Columbia account for 22% (2,328) of the cumulative cases reported through December 31, 2000, and 26% of the newly reported cases between 1996 and 2000. AIDS cases among Black women in the District have been rising. The number of reported cases among women 13-19 rose by 33% from 1996 to 2000; among women 19-24, cases rose by 37%; and among women 25 and older, cases rose by 42%. Representing the overwhelming majority (95%) of women reported with AIDS in the District, Black women have surpassed the number of reported cases among White men since 1994. Injection drug use (45%) and heterosexual contact (42%) represent the predominant exposure modes among newly reported cases in Black women. Women tend to be younger than men at time of AIDS diagnosis. Among new cases, the proportion of women (21%) diagnosed between the ages of 20 to 29 was larger than the proportion of men (13%), which suggests that the likelihood of women getting infected with HIV during their teen years is higher than among men. The median age at diagnosis among new cases among women and men was 37 and 39, respectively.

### **2.6.1 HIV Seroprevalence among Childbearing Women and Estimated Number of Perinatal Infections by Year of Delivery**

- Unlinked surveys are necessary to provide unbiased, accurate data on the current status and direction of the HIV epidemic in specific populations and also to provide reliable information for prevention planning and the allocation of resources.
- In the District of Columbia, seroprevalence surveys among women of childbearing age were conducted between 1989 and 1994 in collaboration with the CDC.
- Results from the District of Columbia surveys indicate that HIV seroprevalence was 6-7 times higher than the rate for childbearing women nationwide.
- In past years, it was these surveys that provided the percentage of seropositive childbearing women in the District as a basis for estimating the number of perinatal infections by year of delivery. In the coming years, integrating HIV/AIDS case surveillance systems will increase the District of Columbia's ability to monitor and characterize populations affected by the HIV epidemic.
- The CDC *HIV/AIDS Surveillance Report* (Year-end 2000 edition Vol. 12, No. 2) stated, “Identifying recent infections to monitor HIV incidence in the population may be feasible. One method, that may be applied in the future, to measure HIV incidence is the Serologic Testing Algorithm for Recent HIV Seroconversion (STARHS) on serologic specimens from all persons with newly diagnosed HIV infection.”
- The determination of factors contributing to perinatal transmission relies upon investigations into the following: lack of maternal HIV testing, lack of prenatal care, lack of access to care, lack of utilization of prevention methods, lack of negotiating skills, lack of perceived risk, lack of appropriate counseling regarding therapy, lack of adherence to therapy, lack of insurance/reimbursement/entitlements, and availability of support services.

## 2.7 AIDS Cases Among Children

The U.S. Public Health Service Task Force recommended in 1994 that all HIV-infected pregnant women and their newborns receive zidovudine (ZDV, AZT). Current evidence suggests that most maternal-infant HIV transmission occurs late in pregnancy or during labor and delivery. There has been a significant improvement in the prevention of HIV transmission from mothers to their infants due to the administration of ZDV during pregnancy, during labor/delivery, and during the neonatal period (first month of life). There is an approximate two-thirds risk reduction from 25% (without ZDV intervention) to 8.3% HIV transmission after treatment. Despite treatment, pediatric HIV infection remains a fatal disease whose prevention is of paramount importance.

In 1989, the District became a site for the CDC-funded Pediatric Spectrum of Disease (PSD) project that studies and tracks the health of children born to HIV-infected mothers. In 1995 and 1996, respectively, 85% and 93% of the mother-infant pairs enrolled in the three-site study received at least some portion of the recommended ZDV regimen, but only 32% and 52%, respectively, received the full treatment. Delivery of the full recommended ZDV treatment to all HIV-infected pregnant women and their infants would improve the success of the only intervention known to interrupt HIV transmission.

- Between 1981 and 2000, 167 pediatric AIDS cases were reported, 85% were under age 5 and 15% were age 5-12 at the time of initial diagnosis with AIDS.
- A large majority (81%) is still alive.
- For District children across racial/ethnic groups, almost all AIDS cases were attributed to perinatally acquired HIV infection from maternal risk behavior (i.e., IDU, heterosexual sex with bisexual male, etc.).
- The majority (95%) of the reported AIDS cases were among Blacks/African-Americans, while cases among Whites and Hispanics accounted for 2% each.
- Among Blacks, 96% of the cumulatively reported AIDS cases were attributed to perinatal transmission, 2% attributed to receipt of blood transfusion or blood components, and approximately 1% attributed to risk not reported or identified.
- Of the total AIDS cases among Black infants and children in the District of Columbia, 18% were reported in the first decade (1980's) of the epidemic, while 82% were reported during the second decade (1990's), indicating a 415% increase.
- Yet nationally per CDC, "The number of estimated pediatric AIDS cases diagnosed each year has declined since 1992." (*HIV/AIDS Surveillance Report*, 2000;12 (No. 2):[5].)



**Table 18**

<b>Pediatric AIDS Cases by Race/Ethnicity, Year of Diagnosis, and Exposure Category, District of Columbia, 1983-1989 and 1990-2000</b>						
<b>EXPOSURE CATEGORY</b>	<b>RACE/ETHNICITY</b>					
	<b>Black</b>		<b>Other*</b>		<b>TOTAL</b>	
	1983-89	1990-00	1983-89	1990-00	1983-89	1990-00
	# (%)	# (%)	# (%)	# (%)	# (%)	# (%)
Maternal Risk	26 (87)	135 (99)	* (67)	* (80)	28 (85)	139 (98)
Blood Transfusion	* (13)	0 (0)	* (33)	* (20)	5 (15)	* (1)
Other/Undetermined	0 (0)	2 (1)	0 (0)	0 (0)	0 (0)	2 (1)
Subtotal	30(100)	137(100)	3 (100)	5 (100)	33 (100)	142(100)
<b>TOTAL</b>	30 (91)	137 (96)	3 (9)	5 (4)	33 (100)	142(100)

SOURCE: DOH/HAA/DOE, 2001 \*includes Hispanic children and White children

## **2.8 AIDS Cases among Adolescents and Adults Under Age 25 Years**

Among adolescents between the ages of 13 and 19 when first diagnosed with AIDS, a cumulative total of 43 AIDS cases were diagnosed as of December 31, 2000. (Table 35) Of the total teen cases, the majority (58%) was among females and 42% were among males. Heterosexual contact is the main HIV exposure category among those District of Columbia residents initially diagnosed with AIDS in their teen years, accounting for 53% (23). Among teenage girls, 76% of AIDS cases were attributed to heterosexual contact (76%), with fewer than 5 cases reported in each of the other transmission categories. Among teenage boys, 52% of AIDS cases were attributed to male-to-male sexual contact, 30% attributed to heterosexual contact, and less than 5 cases were reported in each of the other modes of HIV transmission.

- District data suggest that there is a higher risk of HIV infection for female than male teens through heterosexual contact.
- An increasing trend in AIDS cases attributed to heterosexual contact was observed among teenage girls.
- Among teenage boys, AIDS cases attributed to male-to-male sexual contact increased.

### ***Youth Risk Behavior Survey (YRBS)***

The Youth Risk Behavior Survey (YRBS) is a complex multistage sample survey administered by the District of Columbia Public Schools using clusters of students in schools and classes to represent the behavior of all high school level students in the District of Columbia. The 1999 District of Columbia High School Survey sampled 23 participating schools out of the total 26 regular public schools containing grades 9, 10, 11, or 12, for a school response rate of 88%. The results show that 1,762 out of the 2,345 sampled students completed usable questionnaires, for a student response rate of 75%. The overall response rate was 66%. Two-stage cluster sampling was used to compute sampling errors. The weighted results can be used to make important inferences concerning the priority health-risk factors of all regular public school students in grades 9 through 12. Approximately 55% of the questions were answered by teenage girls and 45% by teenage boys, varying slightly by question.

- Over time, there has been variability in answer to the question "Have you ever had sexual intercourse?" The previous 1995 and 1997 YRBS results were that 72% and 79% answered "Yes." Showing a substantial decrease, the 1999 YRBS results indicate 65% of DC high school level students sampled had sexual intercourse. Among teenage boys, the proportion was 70%, compared to teenage girls at 60%. More specifically by age, 48%, 71%, and 81% answered "Yes" of those age 15 or younger, age 16 or 17, and age 18 or older, respectively.

- The overall percentage of high school level students who never had sexual intercourse was 35%; however, the specific percentage for each grade dropped significantly from 48% among 9<sup>th</sup> graders to 39%, 25%, and 21% among 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> graders.

## **BY GENDER**

- Although 40% of females and 30% of males at high school level answered that they “Never had sexual intercourse,” 4% of females and a high 20% of males said they had sexual intercourse for the first time when they were 11 years old or younger, increasing to 10% and a high of 14% of females at 13 and 14 years old, respectively, and decreasing to 16% and 10% of males at 13 and 14 years old, respectively.
- Although 30% of females and 34% of males at high school level answered that they “Never drank alcohol,” 18% of females and 10% of males said they had their first alcoholic drink at 8 years or younger, 22% of females and 19% of males said when they were 13 or 14 years old.
- “How old were you when you tried marijuana for the first time?” Overall, 55% of District of Columbia high school level students answered that they “Never tried marijuana,” ranging by age from 66% for those age 15 or younger, to 50% age 16 or 17, and to 43% age 18 or older. By grade, the distribution for those who said they never tried marijuana was 66% for 9<sup>th</sup> graders, 54% for 10<sup>th</sup> graders, 51% for 11<sup>th</sup>, and down to 40% for 12<sup>th</sup> graders.
- Although 56% of females and 52% of males at high school level answered that they “Never tried marijuana,” 1% of both females and males said they tried marijuana for the first time at 8 years or younger, jumping to 19% of both females and males said their first time was when they were 13 or 14 years old -- almost the same as for first drink of alcohol.

Among District residents age 20 to 24 at first diagnosis, 440 AIDS cases had been diagnosed through December 31, 2000 (Table 35). Of these, 71% were male and 29% were female. Among males, the predominant mode of transmission was to male-to-male sexual contact (70%), followed by heterosexual contact (11%), IDU (7%), and MSM/IDU (7%). Among young adult females, the majority (63%) of AIDS cases are attributed to heterosexual contact, 24% are attributed to IDU, and 10% are attributed to Other/Unknown. “Other/Unknown” includes persons with AIDS with risks and mode(s) of HIV transmission yet to be identified and then subsequently to be reclassified into risk categories.

**Table 19**

**AIDS Cases among Adolescents/Adults Under Age 25 Years by Age Group, Year of Diagnosis, Gender, and Exposure Category, District of Columbia, 1981-2000**

EXPOSURE CATEGORY	AGE IN YEARS						
	13 - 19			20 - 24			13 - 24
	1981-89	1990-95	1996-00	1981-89	1990-95	1996-00	TOTAL
	# (%)	# (%)	# (%)	# (%)	# (%)	# (%)	# (%)
<b>MALE</b>							
Males Who Have Sex with Males (MSM)	* (100)	7 (54)	* (50)	88 (82)	86 (66)	45 (59)	229 (69)
Injecting Drug Users (IDU)	0 (0)	* (8)	0 (0)	* (4)	13 (10)	* (7)	23 (7)
MSM/IDU	0 (0)	0 (0)	0 (0)	8 (7)	10 (8)	* (4)	21 (6)
Heterosexual Contact	0 (0)	* (23)	* (25)	* (4)	15 (12)	16 (21)	39 (12)
Other/Unknown	0 (0)	2 (15)	1 (25)	3 (3)	6 (5)	7 (9)	19 (6)
Subtotal	* (100)	13 (100)	* (100)	107 (100)	130 (100)	76 (100)	331 (100)
<b>FEMALE</b>							
IDU	0 (0)	* (6)	0 (0)	8 (47)	12 (20)	7 (14)	28 (18)
Heterosexual Contact	* (100)	13 (81)	* (57)	8 (47)	44 (75)	35 (69)	106 (70)
Other/Unknown	0 (0)	* (13)	* (43)	1 (6)	3 (5)	9 (18)	18 (12)
Subtotal	* (100)	16 (100)	7 (100)	17 (100)	59 (100)	51 (100)	152 (100)
<b>TOTAL</b>	*	29	11	124	189	127	483

SOURCE: DOH/HAA/DOE, 2001

### 2.8.1 HIV Seroprevalence among Job Corps Entrants for 2000

In 2000, 68,537 Job Corps entrants were tested for HIV virus in the United States. The percentage testing positive was .2%. In contrast, there were 223 District entrants and 1.3% tested positive.

### 2.8.2 HIV Seroprevalence among Civilian Applicants for Military Service Aged 17-19 and 20-24 by Gender and Year of Report

Between 1985 and 2000, 7,628 District of Columbia resident civilian military applicants aged 17-19 and 20-24 were tested for HIV. Among the 17-19, the proportion of males was 76% while that of females was 24%. Among the 20-24, 76% were males and 23% were females. Seroprevalence among the 17-19 males was 0.49% and among females of same age group was 0.31%. Among the 20-24 year olds seroprevalence among the males was 1.1%, while among females it was 0.24%.

**Table 20 HIV Prevalence among Civilian Military Applicants by Age Group and Gender, District of Columbia, 1985-2000**

GENDER	AGE GROUP				
	17 – 19 # tested (%HIV+)	20 - 24 # tested (%HIV+)	25 - 29 # tested (%HIV+)	30+ # tested (%HIV+)	TOTAL # tested (%HIV+)
Male	3,061 (.005)	2,719 (.011)	1,303 (2.1)	909 (2.0)	8,012 (1.1)
Female	982 (.003)	846 (.002)	349 (0.6)	251 (0.0)	2,428 (0.3)
TOTAL	4,043 (.004)	3,565 (.009)	1,652 (1.8)	1,160 (1.6)	10,440 (1.0)

SOURCE: U.S. Department of Defense, 2001

### 2.8.3 HIV Seroprevalence among Military Applicants by Gender and Race/Ethnicity, 1985-2000

Between 1985 and 2000, 2428 female civilian military applicants were tested for HIV. Among those tested, Whites accounted for 9%, Blacks accounted for 87.6%, Hispanics accounted for 1.2%, and Others accounted for 0.9%. The over-all seroprevalence was 0.29%. While seroprevalence among Blacks was 0.33%, none of those tested among Whites, Hispanics, and Others tested positive.

**Table 21 HIV Prevalence among Civilian Military Applicants by Race/Ethnicity and Gender, District of Columbia 1985-2000**

GENDER	RACE/ETHNICITY				
	White # tested (%HIV+)	Black # tested (%HIV+)	Hispanic # tested (%HIV+)	Other # tested (%HIV+)	TOTAL # tested (%HIV+)
Male	948 (.004)	6,788 (.003)	91 (0.0)	59 (0.0)	8,012 (1.1)
Female	220 (.0)	2,126 (.003)	28 (0.0)	22 (0.0)	2,428 (0.3)
TOTAL	1,168 (.003)	8,914 (.003)	119 (0.0)	81 (0.0)	10,440 (1.0)

SOURCE: U.S. Department of Defense, 2001

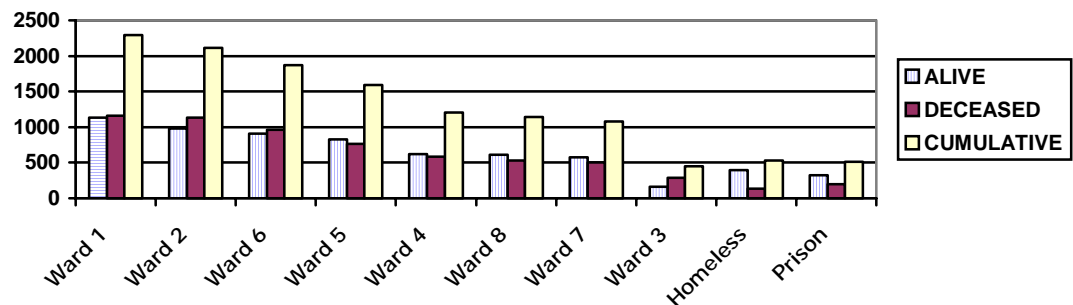
### Question 3 What is the Geographic Distribution of HIV Infection?

It is widely accepted that the HIV epidemic is better characterized as a composite of multiple sub-epidemics of varying magnitude with different starting points and slopes, rather than a single homogenous epidemic. This is responsible for the uneven distribution of HIV infection and therefore risk factors for HIV acquisition, both geographically and within populations. Thus, the identification of the subpopulations at higher risk for infection and the major locations of HIV transmission are of critical value for effective targeting of prevention efforts. However, only limited data are available for the purpose above.

As of December 31, 2000, 13,040 cumulative AIDS cases were reported among District of Columbia residents. While 89% of the individuals counted as District AIDS cases lived at residential addresses at the time they were first diagnosed with AIDS, 10% were listed as homeless, prison inmates, or residence unknown.

**Figure 10**

AIDS CASES REPORTED THROUGH DECEMBER 31, 2000 ALIVE, DECEASED, CUMULATIVE  
BY WARD OF RESIDENCE (GEO-POLITICAL AREA) DISTRICT OF COLUMBIA

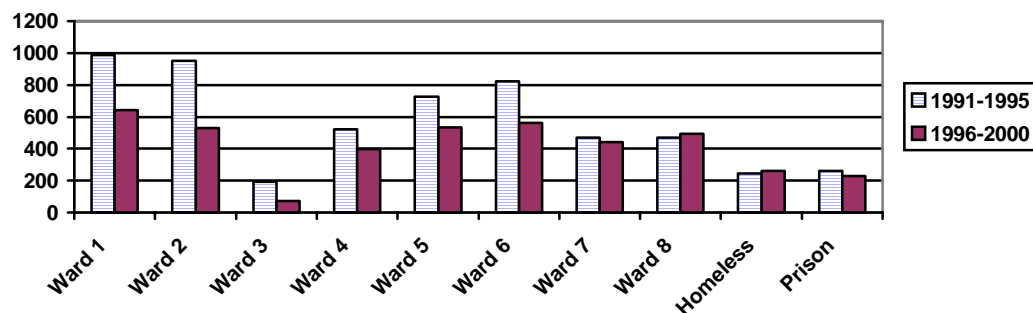


SOURCE: DOH/HAA/DOE, 2001

- The District of Columbia is divided into geo-political areas called Wards. There are a total of eight Wards in the District of Columbia.
- Ward 1 has the highest number of alive, deceased, and cumulative AIDS cases, followed by Ward 2 then Ward 6.
- Ward 3 has the lowest number of alive, deceased, and cumulative AIDS cases.
- AIDS cases among the homeless and those in prison at the time of diagnosis represent a significant number of the cases.

**Figure 11**

CUMULATIVE AIDS CASES BY WARD OF RESIDENCE  
AND GROUPED BY YEAR OF DIAGNOSIS 1991-1995/1996-2000, DISTRICT OF COLUMBIA

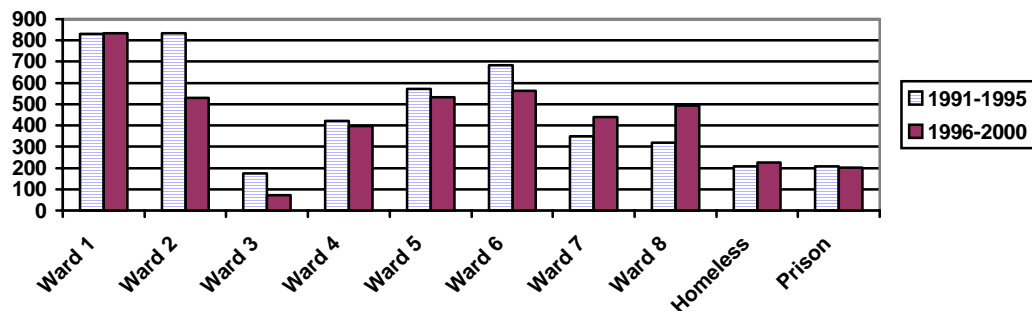


SOURCE: DOH/HAA/DOE, 2001

- There is a very slight decrease in the number of diagnosed AIDS cases for Ward 7.
- There is an increase in the number of diagnosed AIDS cases for Ward 8.
- There has been an increase in the number of AIDS cases diagnosed among the homeless.

**Figure 12**

**ADULT MALE CUMULATIVE AIDS CASES BY WARD OF RESIDENCE  
AND GROUPED BY YEAR OF DIAGNOSIS 1991-1995/1996-2000, DISTRICT OF COLUMBIA**

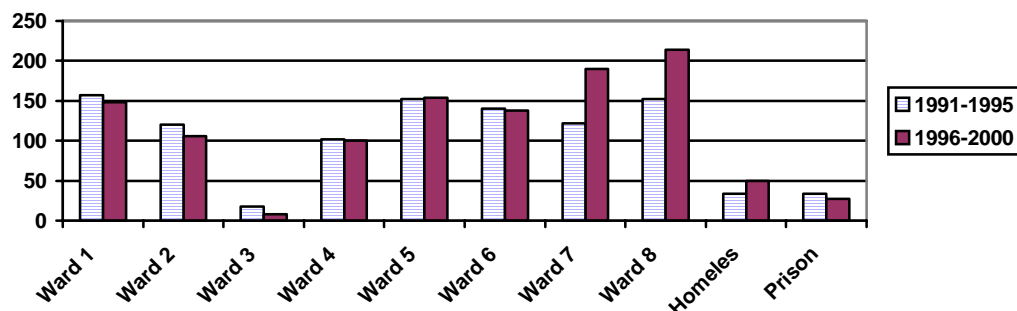


SOURCE: DOH/HAA/DOE, 2001

- Ward 1 remains basically the same in terms of the number of diagnosed AIDS cases.
- There is a slight decrease in the number of diagnosed AIDS cases from Ward 4.
- There are increases in the number of diagnosed AIDS cases in Wards 7 and 8.
- There is a slight increase in AIDS cases diagnosed among the homeless.

**Figure 13**

**ADULT FEMALE CUMULATIVE AIDS CASES BY WARD OF RESIDENCE  
AND GROUPED BY YEAR OF DIAGNOSIS 1991-1995/1996-2000, DISTRICT OF COLUMBIA**



SOURCE: DOH/HAA/DOE, 2001

- There has been a slight decrease in the number of diagnosed AIDS cases in Ward 4.
- There has been a slight increase in the number of diagnosed AIDS cases in Ward 5.
- There have been large increases in Ward 7, Ward 8, and among the homeless.
- From 1996-2000, Ward 8 and Ward 7 have the highest number of women diagnosed with AIDS.

### 3.1 AIDS Cases by Ward

**Table 22 Distribution of Adult/Adolescent AIDS Cases by Ward and Grouped by Period of Report 1983-2000 and 1996-2000, District of Columbia**

PERIOD	WARD											
	1	2	3	4	5	6	7	8	Homeless	Inmates	Unknown	TOTAL
1983-2000	2,264	2,100	448	1,189	1,561	1,854	1,058	1,102	527	516	249	12,868
1996-2000	777	648	93	451	617	670	493	523	300	273	64	4,909

SOURCE: DOH/HAA/DOE, 2001

**Table 23 AIDS Cases by Race/Ethnicity, Exposure Category, and Ward, District of Columbia, Reported 1996–2000**

	WARD											
	1	2	3	4	5	6	7	8	Homeless	Inmates	Unknown	TOTAL
<b>GENDER</b>												
Male	608	532	80	338	446	512	293	295	244	240	60	3,648
Female	169	116	13	113	171	158	200	228	56	33	4	1,261
<b>RACE/ETHNICITY</b>												
White	154	194	53	38	38	99	12	6	16	3	20	633
Black	534	415	32	397	566	556	479	513	261	265	40	4,059
Hispanic	78	34	4	16	11	14	2	5	20	5	4	191
Other	11	5	4	0	2	1	0	0	3	0	0	26
<b>EXPOSURE CATEGORY</b>												
MSM	384	370	63	171	216	283	106	103	71	40	38	1,845
IDU	175	120	6	128	206	192	199	206	104	190	9	1,535
MSM/IDU	25	15	4	7	17	14	14	11	15	7	1	142
Hetero.	140	100	12	91	127	122	133	146	65	26	6	968
Other	53	43	8	54	51	59	41	57	45	10	8	419
TOTAL	777	648	93	451	617	670	493	523	300	273	62	4,909

SOURCE: DOH/HAA/DOE, 2001

### 3.2 AIDS, STDs, TB/AIDS, and Hepatitis B Cases by Ward

AIDS prevalence varies among the eight Wards, from 4% in Ward 3 to 20% in Ward 1. The mean AIDS prevalence was 13% across all the Wards and nonWard categories. In particular, Wards 1, 2, 5, and 6 have AIDS rates higher than the mean. Of the cumulative AIDS case total in the District, the homeless and those residents with no fixed address account for 4%, prison inmates also account for 4%, and those with unknown residence account for 3%.

Looking at the AIDS data reported during the most recent years (1996-2000), 84% were distributed among the Ward residents, while 17% were among the nonWard categories. During this period, there was also a broad range of AIDS case prevalence among the Wards, from 2% in Ward 3 to 17% in Ward 1. The respective mean prevalence for the years 1996 through 2000 was 13%, using the adjusted Census population estimates. When comparing the cumulative case total with the cases reported during the most recent period, the homeless and prison categories have both increased from 4% to 7% each, while the unknown category has stayed the same at 3%. There is also consistency among Wards 1, 2, 5, and 6. When comparing cumulative totals to more recent data, rates are greater than the mean value in these Wards that have the highest number of AIDS cases.

### 3.3 AIDS, STDs, and TB/AIDS Cases by Ward

**Table 24 Distribution of AIDS, Primary and Secondary Syphilis, Chlamydia, Gonorrhea, Hepatitis B, and TB/AIDS by Ward, Washington, D.C., by years of report 1983-2000, 1996-2000, and 1984-2000**

DISEASE	WARD											
	1	2	3	4	5	6	7	8	Homeless	Inmates	Unknown	TOTAL
AIDS 1983-00	2,291	2,109	449	1,206	1,592	1,873	1,077	1,145	529	516	253	13,040
AIDS 1996-00	947	804	120	545	747	818	610	623	341	320	78	5,953
Syphilis* 1996-00	47	67	8	29	62	63	82	84	N/A	N/A	48	490
Chlamydia 1996-00	837	636	75	546	873	893	1,002	1,294	N/A	N/A	8,489	14,645
Gonorrhea 1996-00	1,752	1,417	224	1,076	2,217	2,243	2,614	2,915	N/A	N/A	8,924	23,282
Hepatitis B** 1996-00	19	14	X	9	13	13	14	19	N/A	N/A	4	108
TB/AIDS 1984-00	116	87	11	61	78	96	40	46	38	52	5	630

\*Primary & Secondary

\*\* Cases are not complete for the year 2000.

X Data are too few to disclose per HAA/DOE data release policy.

SOURCES: DOH/HAA/DOE, Bureau of STD Control, DOH/Bureau of Epidemiology & Disease Control, Washington, D.C., 2001

It is mandatory that Syphilis and chlamydia are reported in the District of Columbia. The above Table 24 shows the geographic concentration of sexually transmitted diseases and includes syphilis, gonorrhea, and chlamydia, which can be used as surrogate indicators of HIV infection. Wards with higher STDs, may indicate higher HIV infections. Some published data showed that "HIV infection could not be established in the general U.S. heterosexual population in the absence of chlamydial infection or other STDs with comparable effects on HIV transmission." (*The Hidden Epidemic*, pg. 56). Examining the District's AIDS case data for the same period (1996-2000), Wards 7 and 8 have the highest number of female adult/adolescent AIDS cases. Wards 7 and 8 also have the lowest number of AIDS cases among men who have sex with men, and have AIDS cases among the highest for cases attributed to heterosexual contact and illicit injection drug use.

In the United States, heterosexual transmission represents the fastest growing proportion of AIDS cases (CDC, 1994c). From unpublished 1996 data from CDC, Division of STD Prevention, studies indicate that heterosexual transmission of HIV is currently most common among age, ethnic, and socioeconomic groups that have the highest incidence of traditional STDs, such as gonorrhea and syphilis. In addition, increases in syphilis incidence in specific areas throughout the United States have preceded increases in HIV prevalence among prenatal women by about two years. For example, the geographic distribution of reported gonorrhea and syphilis in the United States corresponds closely with the distribution of areas with the highest prevalence of HIV among pregnant women.

#### **BY WARD**

- The highest numbers of recent AIDS cases are in Wards 1, 6, 2, and 5;
- The highest numbers of recent primary and secondary syphilis cases are in Wards 8, 7, 2 and 5; and
- The highest numbers of recent chlamydia and gonorrhea cases are in Wards 8, 7, 6, and 5 (there are a large number of cases with unknown Ward).

### 3.4 AIDS Cases among the Incarcerated

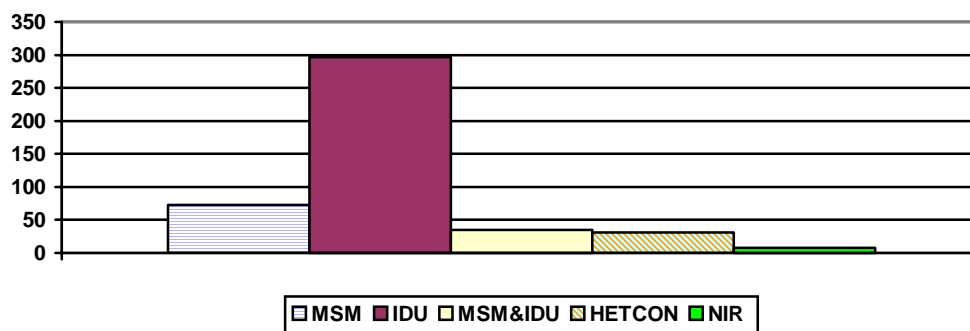


The incarcerated have a disproportionate amount of disease and illness such as TB, Hepatitis, STDs, HIV/AIDS, substance abuse, and mental illness. To obtain a clear gauge of their health status, prospective changes in behavior, and accurate counts of infection rates, active surveillance systems must be arranged. Although the District of Columbia has both highly affluent and extremely impoverished areas, the vast majority of incarcerated persons come from our poor communities throughout the city. The heaviest concentration of incarcerated persons comes from communities east of the Anacostia River, a predominately Black, historically underserved, and geographically isolated area. As of July 2001, the DC Department of Corrections closed out their contracts with the Corrections Corporation of America and the states of New Mexico, Arizona, Ohio, and Tennessee. All District prisoners are currently in the custody of the Federal Bureau of Prisons (BOP) and are contained within the BOP system throughout the United States. Therefore, the Department of Corrections includes one prison at Lorton, which will close in December 2001, one Detention Facility (DC Jail) and one Halfway house. Female inmates are contained in a facility in West Virginia. The District's Youth Services Administration operates a juvenile detention facility, which is located in Laurel, Maryland.

- The number reached an extreme peak in 1996 and then dropped precipitously afterward.
- The great majority of persons incarcerated were Black (97%) out of a total of 508.

**Figure 14**

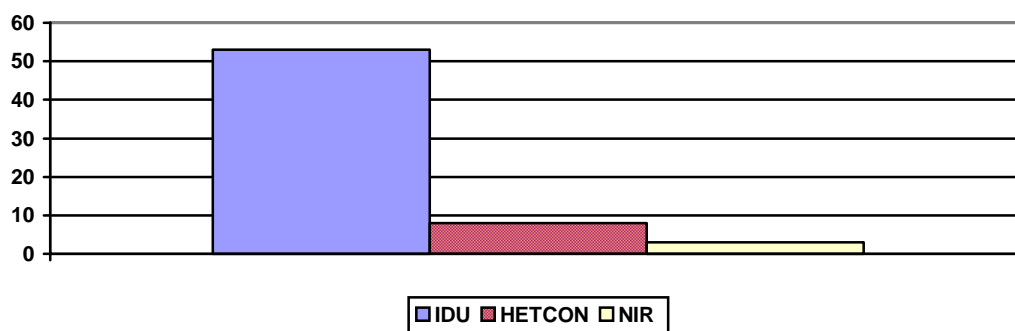
Males Incarcerated under District of Columbia Auspices and Diagnosed with AIDS from 1990-2000, by Mode of Exposure



SOURCE: DOH/HAA/DOE, 2001

**Figure 15**

Females Incarcerated under District of Columbia Auspices and Diagnosed with AIDS from 1990-2000, by Mode of Exposure.



SOURCE: DOH/HAA/DOE, 2001